STIC Search Report
EIC 3700

STIC Database Tracking Number: 93846

TO: Amy Vanatta
Location: CP2-4B22
Tuesday, May 13, 2003

Case Serial Number: 09/605979

From: Julie Walko
Location: EIC 3700
CP2-2C08
Phone: 305-8587

Julie.walko@uspto.gov

Search Notes

Amy:

Attached are the results to your request regarding a polymer film with chopped fibers.

As I mentioned on the phone, I did not narrow the search to medical gloves – I looked for any polymer film with chopped fibers. I found many hits and narrowed the full-text patents to 1997 and earlier. I only marked a few items because it quickly became clear that most are relevant. Therefore, I recommend you review the entire packet.

If you have any questions or would like this search reworked in any way, please do not hesitate to contact me at the number or address listed above.

ps-- I didn't do an Internet search only because the early priority date.

Inventor Search

14/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012599223
WPI Acc No: 1999-405329/199934
XRAM Acc No: C99-119662
XRPX Acc No: N99-302149
Cut-resistant polymeric **film used for making medical and industrial** gloves
Patent Assignee: UNIV AKRON (UYAK)
Inventor: **CHENG S Z D ; HARRIS F W ; WU Z**
Number of Countries: 083 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9933367	A1	19990708	WO 98US27911	A	19981231	199934 B
AU 9920241	A	19990719	AU 9920241	A	19981231	199951
US 6021524	A	20000208	US 972011	A	19971231	200014
EP 1043943	A1	20001018	EP 98965048	A	19981231	200053
			WO 98US27911	A	19981231	
JP 2001526923	W	20011225	WO 98US27911	A	19981231	200204
			JP 2000526137	A	19981231	

Priority Applications (No Type Date): US 972011 A 19971231
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9933367	A1	E	25	A41D-019/00	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9920241	A		A41D-019/00	Based on patent WO 9933367
US 6021524	A		A41D-019/00	
EP 1043943	A1	E	A41D-019/00	Based on patent WO 9933367

Designated States (Regional): AT BE CH DE DK ES FI FR GB IE IT LI NL SE

JP 2001526923	W	28	A61B-019/04	Based on patent WO 9933367

Abstract (Basic): WO 9933367 A1

NOVELTY - A **polymeric** film with increased cut resistance comprises a **polymeric** matrix containing dispersed cut resistance-enhancing fibers.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a **glove** having increased cut resistance and comprising at least one **polymeric** matrix layer containing dispersed cut resistance-enhancing fibers.

USE - For making cut-resistant medical **gloves** (claimed), e.g. surgical, examination, dental and procedure **gloves** . Also for **gloves** formed by processes other than dip-forming, e.g. melt extrusion, calendering and injection molding. Also for industrial **gloves** .

ADVANTAGE - **Gloves** containing the film are flexible, lightweight, tactile sensitive and cut resistant, and the **polymer** film's mechanical properties, e.g. tensile strength, modulus, elongation and weight, are not affected significantly.

pp; 25 DwgNo 0/1

Title Terms: CUT; RESISTANCE; **POLYMERISE** ; FILM; MEDICAL; INDUSTRIAL; **GLOVE**
Derwent Class: A96; D22; F07; P21; P31

International Patent Class (Main): A41D-019/00; A61B-019/04
International Patent Class (Additional): A41D-019/015
File Segment: CPI; EngPI

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Set     Items   Description
S1        905   AU='WU Z':AU='WU Z Z'
S2          2   AU='WU ZONGQUAN'
S3         14   AU='HARRIS F'
S4         58   E16:E17,E22:E24
S5        270   AU='CHENG S'
S6          8   AU='CHENG S Z D'
S7         13   AU='CHENG STEPHEN Z D'
S8       1246   S1:S7
S9        104   S8 AND POLYMER?
S10         1   S9 AND CHOPPED()(FIBRE? ? OR FIBER? ?)
S11         2   S9 AND GLOVE? ?
S12         2   S11 OR S10
S13         2   IDPAT (sorted in duplicate/non-duplicate order)
S14         1   IDPAT (primary/non-duplicate records only)
? show files
File 347:JAPIO Oct 1976-2003/Jan(Updated 030506)
         (c) 2003 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2003/Apr W04
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030508,UT=20030501
         (c) 2003 WIPO/Univentio
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200330
         (c) 2003  Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.
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Bibliography Patents

9/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013743893
WPI Acc No: 2001-228122/200124
XRAM Acc No: C01-068247
Fiber product for manufacture of fiber glass **reinforced gypsum board, comprises fibers coated with chemical sizing containing predetermined amount of surfactant with preset loss on ignition, on its surface**
Patent Assignee: JOHNS MANVILLE INT INC (JOHM); JOHNS-MANVILLE CORP (JOHM)
Inventor: SMITH H D; DALL SMITH H
Number of Countries: 029 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1076047	A2	20010214	EP 2000115380	A	20000715	200124 B
AU 200045173	A	20010215	AU 200045173	A	20000711	200124
CA 2315483	A1	20010211	CA 2315483	A	20000810	200124
US 6294253	B1	20010925	US 99371981	A	19990811	200158
US 20020005263	A1	20020117	US 99371981	A	19990811	200212
			US 2001917488	A	20010727	
NZ 506253	A	20020201	NZ 506253	A	20000810	200214
US 6521086	B2	20030218	US 99371981	A	19990811	200317
			US 2001917488	A	20010727	

Bad Date

Priority Applications (No Type Date): US 99371981 A 19990811; US 2001917488 A 20010727
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1076047	A2	E	6	C03C-025/24	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
AU 200045173	A			C03B-037/07	
CA 2315483	A1	E		C03C-025/24	
US 6294253	B1			D02G-003/00	
US 20020005263	A1			D21H-013/40	Div ex application US 99371981 Div ex patent US 6294253
NZ 506253	A			B32B-013/02	
US 6521086	B2			D21H-013/40	Div ex application US 99371981 Div ex patent US 6294253

Abstract (Basic): EP 1076047 A2

NOVELTY - A staple fiber product comprises fibers having chemical sizing on its surface. The amount of surfactant in the chemical sizing is such that it produces an loss on ignition (LOI) of the fiber in the range of 0.08-0.24 weight percent (wt.%). The sizing contains surfactant(s) in an amount such that the surfactant level is responsible for 30 wt.% or more of LOI.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (i) **Glass fiber** sizing composition which consists of water and 0.1-1.2 wt.% of the surfactant; (ii) Manufacture of sized fiber which disperses quickly and uniformly in plant water. The method involves applying an aqueous chemical sizing composition to the **glass fiber** and **chopping** the **glass fibers** into discrete lengths. The aqueous sizing composition contains surfactant and upto 1.5 wt.% of **polymer film** former; and (iii) Manufacture of fiber reinforced product which involves dispersing **glass fiber** product containing sizing in plant water.

USE - For manufacture of fiber reinforced product e.g. fiberglass reinforced gypsum board (claimed).

ADVANTAGE - The fiber product having chemical sizing is dispersed quickly, adequately and uniformly in plant water.

pp; 6 DwgNo 0/0

Title Terms: PRODUCT; MANUFACTURE; GLASS; REINFORCED; GYPSUM; BOARD; COMPRISE; FIBRE; COATING; CHEMICAL; SIZE; CONTAIN; PREDETERMINED; AMOUNT; SURFACTANT; PRESET; LOSS; IGNITION; SURFACE

Derwent Class: A14; A93; F01; L01; L02; P73

International Patent Class (Main): B32B-013/02; C03B-037/07; C03C-025/24; D02G-003/00; D21H-013/40

International Patent Class (Additional): C03C-025/26; D21H-017/00

File Segment: CPI; EngPI

9/5/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

012841468 **Image available**

WPI Acc No: 2000-013300/200001

XRAM Acc No: C00-002555

Removable protective casing for heavy articles containing hazardous material, e.g. uranium hexafluoride, during storage and/or transit

Patent Assignee: BRITISH NUCLEAR FUELS PLC (BRNR)

Inventor: MABLESON A R; NICHOLSON G; WESTON C J; WILLETTS J

Number of Countries: 086 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9954887	A1	19991028	WO 99GB1180	A	19990416	200001	B
AU 9936145	A	19991108	AU 9936145	A	19990416	200014	
EP 1075697	A1	20010214	EP 99918100	A	19990416	200111	
			WO 99GB1180	A	19990416		
CN 1298543	A	20010606	CN 99805275	A	19990416	200157	
KR 2001071165	A	20010728	KR 2000711668	A	20001020	200208	
BR 9909824	A	20020430	BR 999824	A	19990416	200237	
			WO 99GB1180	A	19990416		
JP 2002512162	W	20020423	WO 99GB1180	A	19990416	200243	
			JP 2000545156	A	19990416		
EP 1075697	B1	20020904	EP 99918100	A	19990416	200266	
			WO 99GB1180	A	19990416		
DE 69902774	E	20021010	DE 602774	A	19990416	200274	
			EP 99918100	A	19990416		
			WO 99GB1180	A	19990416		

Bad Data

Priority Applications (No Type Date): GB 988242 A 19980421

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9954887	A1	E	31	G21F-005/08	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9936145	A			Based on patent WO 9954887
EP 1075697	A1	E	G21F-005/08	Based on patent WO 9954887

Designated States (Regional): BE DE ES FR GB NL SE

CN 1298543	A	G21F-005/08	
KR 2001071165	A	G21F-005/08	
BR 9909824	A	G21F-005/08	Based on patent WO 9954887

JP 2002512162 W 28 B65D-081/38 Based on patent WO 9954887
EP 1075697 B1 E G21F-005/08 Based on patent WO 9954887
Designated States (Regional): BE DE ES FR GB NL SE
DE 69902774 E G21F-005/08 Based on patent EP 1075697
Based on patent WO 9954887

Abstract (Basic): WO 9954887 A1

NOVELTY - Protective casing for heavy articles containing hazardous materials comprises two casing members, each consisting of plastic-reinforced outer and inner skins; low density filling core between the skin members; a sealer located between the two casing members; and a fastener.

USE - Used for protecting heavy articles containing hazardous materials, e.g. uranium hexafluoride, during storage and/or transporting.

ADVANTAGE - The protective casing is lighter in weight, removable, more durable, and easily repairable than the conventional overpack. It also has improved resistance to fire, corrosion and weathering.

DESCRIPTION OF DRAWING(S) - The drawing shows the side view of the protective casing.

Casing (10)
Semi-cylindrical half shells (12,14)
Cradle member (20)
Fastener (26)
Joint line (28)
pp; 31 DwgNo 1/13

Title Terms: REMOVE; PROTECT; CASING; HEAVY; ARTICLE; CONTAIN; HAZARD; MATERIAL; URANIUM; STORAGE; TRANSIT
Derwent Class: A92; K07; Q32; Q34
International Patent Class (Main): B65D-081/38; G21F-005/08
International Patent Class (Additional): B65D-006/02; G21C-019/32
File Segment: CPI; EngPI

9/5/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007430097
WPI Acc No: 1988-064032/198809
XRAM Acc No: C88-028687

Dimensionally stable nonwoven sheet of cellulosic and glass fibres - **has polymeric binder made on paper-making machinery, using surfactant and controlled addn. of ingredients to give good properties**

Patent Assignee: CONGOLEUM CORP (CONG)
Inventor: BAILEY W J; BUHNER R W; FOWLER J A; GROSE R E; MORTON J F; PIACENTE A N
Number of Countries: 017 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8801319	A	19880225	WO 87US1980	A	19870811	198809	B
PT 85530	A	19880817				198838	
DK 8801991	A	19880610				198841	
EP 317576	A	19890531	EP 87905828	A	19870811	198922	
ES 2004980	A	19890216	ES 872374	A	19870812	198938	
FI 8900675	A	19890213				198940	
JP 2500290	W	19900201	JP 87505242	A	19870811	199011	
EP 317576	A4	19910703	EP 87905828	A	19870000	199517	

Priority Applications (No Type Date): US 86896423 A 19860813
Cited Patents: 1.Jnl.Ref; EP 97974; US 4011130; US 4245689; US 4269657; US 4274916; US 4426470; US 4545854; US 4609431; US 4680223; No-Citns.

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
WO 8801319 A E 36
  Designated States (National): DK FI JP KR
  Designated States (Regional): AT BE CH DE FR GB IT LU NL SE
EP 317576 A E
  Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

Abstract (Basic): WO 8801319 A
The dried composite sheet, contg. 5-50 (esp. 20-25) wt.% cellulosic fibres and 5-25 (esp. 12.5-15) wt.% **glass fibres** , is formed from an aq. compsn. prepd. by adding in sequence **chopped glass fibre** and a water-insol. **film** -forming **polymeric** binder (I) to an aq. dispersion of wood pulp and water-soluble surfactant (II) and pref. also filler (III). The pulp is of soft-wood fibres, present in the dispersion in amt. to give consistency 0.75-5 (pref. 2-4)% at 70-80 deg.F, having external fibrillation characterised as a drainage of 260-600cc (Canadian standard Freeness (CSF)) and internal fibrillation characterised as breaking length of 4-12 (pref. 6-12) km at room temp. and density of 0.50-0.75 (pref. 0.67-0.72) g/cc (determd. from a Tappi Standard Hand sheet according to TAPPI T494 om 81 and T220 om 83 respectively). The **glass fibres** are used in amt. to give partial consistency in the dispersion of 0.5-3.0%, and are 0.1-0.7 in. long with dia. 6-13 microns.
USE/ADVANTAGE - The sheet, which can be made on standard papermaking machinery using commercial **glass fibre** is useful as backing or interlinear for surface-covering laminates (claimed), resistance to delamination and dimensional stability are maintained under a wide variety of climatic conditions.
Title Terms: DIMENSION; STABILISED; NONWOVEN; SHEET; CELLULOSIC; GLASS; FIBRE; POLYMERISE; BIND; MADE; PAPER; MACHINE; SURFACTANT; CONTROL; ADD; INGREDIENT; PROPERTIES
Derwent Class: A32; A94
International Patent Class (Additional): C08J-005/00; D21F-011/00; D21H-005/18; D21H-013/40
File Segment: CPI

9/5/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007124181
WPI Acc No: 1987-124178/198718
XRAM Acc No: C87-051499
Laminate of polyethylene terephthalate reinforced with glass fibres - **treated with a mixt. of film forming polymer, coupling agent and cationic lubricant**
Patent Assignee: PPG IND INC (PITT)
Inventor: CARLEY E P; RAGHUPATHI N; CARLEY E
Number of Countries: 009 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 220513	A	19870506	EP 86113362	A	19860929	198718	B
JP 62087348	A	19870421	JP 86235459	A	19861002	198721	
JP 92012896	B	19920306	JP 86235459	A	19861002	199214	
EP 220513	B1	19930421	EP 86113362	A	19860929	199316	
DE 3688313	G	19930527	DE 3688313	A	19860929	199322	
			EP 86113362	A	19860929		

Priority Applications (No Type Date): US 85783608 A 19851003
Cited Patents: A3...8834; EP 24895; No-SR.Pub; US 4044188; US 4457970; US 4469543
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
EP 220513 A E
Designated States (Regional): BE CH DE FR GB IT LI NL
JP 92012896 B 16
EP 220513 B1 E 21 C08J-005/08
Designated States (Regional): BE CH DE FR GB IT LI NL
DE 3688313 G C08J-005/08 Based on patent EP 220513

Abstract (Basic): EP 220513 A

Reinforced laminate comprises (1) **glass fibre** strands (**chopped** or continuous, or formed into mats) having a dried residue of an aq. chemical treatment compsn. (A) and (2) a matrix of poly(ethylene terephthalate) (PET) resin. (A) comprises (1) a **film** -forming epoxy **polymer** and/or epoxidised satd. polyester (I) which decomposes at 300 deg. C or higher; (2) as coupling agent (II) an organofunctional epoxy silane, opt. mixed with an amino-silane; (3) a cationic lubricant (III) and (4) a carrier.

The (A) residue pref. includes the residue of a bisphenol polyester resin which is internally emulsified by ethoxylation and has wt. average mol. wt. 30000-45000. It is pref. free of poly(vinyl acetate) and of all hygroscopic materials. (II) is esp. 3-glycidyloxypropyl-trimethoxysilane (IIa) and (II) is a polyalkylene amine amidated with a mixt. of fatty acids, including pelargonic acid. The fibres are pref. mechanically-bonded, needled or chemically-bonded mats, present at 5-70 wt. % of the laminate. The crystallisation rate of the PET component is modified such that the laminate can be heated to the PET m.pt. for stamping to a prod. of at least 30-50% crystallisation in about 5-60 sec at 120-220 deg. C. It is predominantly amorphous; has wt. average mol. wt. 45000-65000, and contains 0.1-1 wt. % nucleating agent. USE/ADVANTAGE - Treatment of the fibres with (A) provides laminates of good processability useful for making moulded objects of good physical properties for longterm, high temp. applications.

0/1

Title Terms: LAMINATE; POLYETHYLENE; TEREPHTHALATE; REINFORCED; GLASS; FIBRE; TREAT; MIXTURE; FILM; FORMING; POLYMER; COUPLE; AGENT; CATION; LUBRICATE
Index Terms/Additional Words: PET
Derwent Class: A23; A32; P73
International Patent Class (Main): C08J-005/08
International Patent Class (Additional): B29B-011/16; B29C-043/02; B29C-051/14; B29K-105/06; B32B-017/04; B32B-027/12; C08K-009/06; C08L-067/02
File Segment: CPI; EngPI

9/5/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003710655
WPI Acc No: 1983-706837/198328
XRAM Acc No: C83-064776
Aq. sizing compsn. for glass fibre **reinforced polymers - comprises coupling agent, lubricant, surfactant, polymeric film former(s) wax, acid and water**
Patent Assignee: PPG IND INC (PITT)

Inventor: TEMPLE C
Number of Countries: 011 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 83057	A	19830706	EP 82111847	A	19821220	198328	B
US 4394418	A	19830719				198331	
JP 58120542	A	19830718	JP 82235057	A	19821222	198334	
CA 1186830	A	19850507				198523	
EP 83057	B	19851121				198547	
DE 3267632	G	19860102				198602	
JP 87057586	B	19871201				198751	

Priority Applications (No Type Date): US 81334349 A 19811224
Cited Patents: EP 683; LU 56713; US 3652326; US 3935344; US 4178412
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 83057	A	E	40		
Designated States (Regional): BE CH DE FR GB IT LI NL					
EP 83057	B	E			
Designated States (Regional): BE CH DE FR GB IT LI NL					

Abstract (Basic): EP 83057 A

Glass fibres are treated with an aq. sizing compsn. (I) comprising (a) an organo-silane coupling agent comprising amino-organo, lubricant modified amino-organo and/or vinyl contg. organo, silane coupling agents, (b) a **glass fibre** lubricant, (c) a nonionic surfactant, (d) more than one **polymeric film** formers including (1) aq. dispersible emulsifiable and/or solubilisable epoxy polymer (II) and poly(vinyl acetate) silane copolymer (III) and (2) polyethylene contg. polymer comprising high medium or low density polyethylene, thermal or oxidative derivs. of higher Mw polyethylene, polyethylene-polypropylene copolymers or polyethylene-1-olefin copolymers, in amt. 0.25 wt.% of (I), (e) 0.5 wt.% of (I) of a wax of density 0 or lower and/or a polyethylene contg. polymer of density 0.935, in wt. ratio of 1:25-25:1, (f) a hydrocarbon acid to make the compsn. pH 4-9, and (g) water to give a total solids content of 1-30 wt.%. A moulded article contg. **chopped glass fibres** treated with the compsn. is also claimed.

The sized **glass fibres** has good choppability yielding chopped sized **glass fibre** with good strength and flow properties for use in producing thermosetting moulding cpds. for injection, compression, extrusion and transfer moulding and producing a moulded composite with good physical properties.

Title Terms: AQUEOUS; SIZE; COMPOSITION; GLASS; FIBRE; REINFORCED; POLYMER; COMPRISE; COUPLE; AGENT; LUBRICATE; SURFACTANT; POLYMERISE; FILM; FORMER; WAX; ACID; WATER
Derwent Class: A14; A17; A21; A82; F06; L01; P73
International Patent Class (Additional): B32B-009/00; C03C-025/02; C08J-005/08; C08L-101/00; C09D-003/39; D06M-015/66
File Segment: CPI; EngPI

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Set     Items   Description
S1    1843837   FILM? ? OR COATING? ?
S2    1831067   POLYMER?? OR COPOLYMER?? OR RUBBER OR POLYCHLOROPRENE OR N-
             EOPRENE OR SYTRENE()(ISOPRENE OR BUTADIENE OR ETHYLENE)(2W)ST-
             YRENE OR SIS OR SBS OR NITRILE OR VINYL()CHLORIDE OR PVC OR P-
             OLYURETHANE OR POLYUREA
S3       2380   CHOP????(2N)(FIBER? ? OR FIBRE? ?)
S4      89976   (GLASS OR STEEL OR ARAMID OR POLYETHYLENE OR PARTICLE()FIL-
             LED)(2N)(FIBER? ? OR FIBRE? ?)
S5      88972   S1(3N)S2
S6         17   S3(S)S5
S7          5   S6 AND S4
S8          5   IDPAT (sorted in duplicate/non-duplicate order)
S9          5   IDPAT (primary/non-duplicate records only)
S10   1240932   GLASS OR STEEL OR ARAMID OR POLYETHYLENE OR PARTICLE()FILL-
             ED
S11      1188   S10(3N)S3
S12         5   S11(S)S5
S13         0   S9 NOT S12
S14         5   S9 OR S12
? show files
File 347:JAPIO Oct 1976-2003/Jan(Updated 030506)
         (c) 2003 JPO & JAPIO
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200330
         (c) 2003  Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.
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Bibl.o
NPL

9/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

5237809 INSPEC Abstract Number: B9605-7910-003
Title: High-performance thermoplastics for rigid-flex printed circuit boards
Author(s): Lin, W.W.; Savrun, E.
Conference Title: Electronic Packaging Materials Science VIII. Symposium p.111-16
Editor(s): Sundahl, R.C.; Tu, K.-T.; Jackson, K.A.; Borgesen, P.
Publication Date: 1995 Country of Publication: USA xi+284 pp.
Abstract: Adhesive failure of rigid-flex printed circuit boards (RF-PCBs) during use has degraded the performance of military avionics systems. Adhesive failure is often caused by differences in the coefficient of thermal expansion (CTE) between the materials used in RF-PCBs and by moisture absorption by the adhesives and polyimide (PI) films. High-performance thermoplastics were investigated to replace the epoxies, PIs, and adhesives currently used in RF-PCBs. As thermoplastic materials are remeltable, adhesive bonding may be replaced by fusion bonding to join RF-PCBs. Fusion bonding would eliminate problems with material compatibility and differences in the CTE encountered with adhesive bonding. An extensive survey of high-performance-engineering thermoplastic materials was performed, and samples of the more promising materials (both films and **chopped fiber** reinforced) were obtained for preliminary screening tests. The tests performed were chemical resistance, water absorption, tensile strength, flexibility, and solder resistance of bare dielectric. From these tests, a glass-filled liquid crystal **polymer film** made by Hoescht Celanese Performance Films best met the performance criteria compared with the thermoplastics tested. (4 Refs)

9/5/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC

04231236 INSPEC Abstract Number: A9220-8140N-013
Title: Interphase bond strength and energy absorption of injection-molded rubber-coated glass/nylon composites
Author(s): Shyh-hua Jao; McGarry, F.J.
Journal: Journal of Reinforced Plastics and Composites vol.11, no.7 p.811-35
Publication Date: July 1992 Country of Publication: USA
CODEN: JRPCDW ISSN: 0731-6844
Abstract: The use of a thin **rubber coating** on the fiber in a fibrous composite has been shown to increase the composite low-speed impact resistance. The coating used was very thin compared to the fiber diameter, in order to preserve the other composite properties. From elastic consideration, the thin **rubber coating** was understood to have a direct effect upon the reduction of the stress concentration in the region near the fiber/matrix interface, especially at the **chopped fiber** end or at the matrix crack front reaching the fiber. If the possible existence of localized high stress zones is reduced, the material can be subjected to higher loading before global failure occurs. With the **rubber coating** the high stress zones inside the material can spread out to a larger volume. There will be less chance for local damage to initiate under the

same loading level. The material will therefore exhibit higher resistance to failure, i.e., it will absorb more energy before failure. Three injection-molded glass/nylon composites were tested for tensile failing energy. One is reinforced with bare **chopped fibers** and the other two are with rubber-coated fibers. Tensile experiments showed significant increase of energy absorption in one sample with a **rubber coating** . Micrograph study was extensively carried out on the failed samples to identify the parameters of this desirable consequence. The rupture of the rubber interphase and the limited plastic flow of the nylon matrix on the fractured surface of failed specimens were clearly evidenced. (10 Refs)

9/5/3 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

03520308 E.I. Monthly No: EI9212147851
Title: Interphase bond strength and energy absorption of injection-molded rubber-coated glass/nylon composites.
Author: Jao, Shyh-Hua; McGarry, Frederick J.
Source: Journal of Reinforced Plastics and Composites v 11 n 7 Jul 1992 p 811-835
CODEN: JRPCDW ISSN: 0731-6844
Abstract: The use of a thin **rubber coating** on the fiber in a fibrous composite has been shown to increase the composite low-speed impact resistance. The coating used was very thin compared to the fiber diameter, in order to preserve the other composite properties. From elastic considerations, the thin **rubber coating** was understood to have a direct effect upon the reduction of the stress concentration in the region near the fiber/matrix interface, especially at the **chopped fiber** end or at the matrix crack front reaching the fiber. If the possible existence of localized high stress zones is reduced, the material can be subjected to higher loading before global failure occurs. With the **rubber coating** the high stress zones inside the material can spread out to a larger volume. There will be less chance for local damage to initiate under the same loading level. The material will therefore exhibit higher resistance to failure, i.e., it will absorb more energy before failure. Three injection-molded glass/nylon composites were tested for tensile failing energy. One is reinforced with bare **chopped fibers** , while the other two are reinforced with rubber-coated fibers. Tensile experiments showed a significant increase in energy absorption in one sample with a **rubber coating** . A micrograph study was extensively carried out on the failed samples to identify the parameters of this desirable consequence. The rupture of the rubber interphase and the limited plastic flow of the nylon matrix on the fractured surface of the failed specimens were clearly evidenced. Meanwhile, interfacial bonding measured through microdebonding tests revealed a reasonable relation between the characteristic interfacial bonding and the energy absorption. (Edited author abstract) 10 Refs.

9/5/4 (Item 2 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

00718008 E.I. Monthly No: EI7805036518 E.I. Yearly No: EI78065157
Title: ON THE ENHANCEMENT OF CARBON FIBER/NYLON MATRIX ADHESION VIA IN SITU POLYMERIZED COATINGS.

Author: O'Connor, James E.; Lewis, Armand F.
Corporate Source: Lord Corp, Erie, Pa
Source: American Chemical Society, Division of Organic Coatings and Plastics Chemistry, Preprints v 37 n 1 1977, 173rd Meet, New Orleans, La, Mar 20-25 1977. Publ by Am Chem Soc, Div of Org Coat and Plast Chem, Washington, DC p 751-757
CODEN: ACOCAO ISSN: 0096-512X
Abstract: Numerous methods have been developed to increase adhesional bonding at the fiber/matrix interface in an attempt to obtain better mechanical and environmental properties for fiber reinforced organic polymer engineering composites. One approach to enhancing fiber-matrix adhesion would be to more effectively wet the reinforcing fibers by the polymer matrix. This can often be accomplished by allowing a low molecular weight, low viscosity monomer to wet the fiber surface; the adhering monomer can then be polymerized while in contact with the fiber and form an in situ polymerized fiber reinforced composite system. In situ polymerization processes of this nature have been reported by Lando and others. In consideration of the Lando work, it was hypothesized in the work reported in this present paper that if a thin coating of polyamide monomer was in situ polymerized onto **chopped** carbon **fibers** , the procedure would induce good fiber/matrix wetting. In the reported experiments, a tenacially adherent **coating** of polyamide **polymer** was in situ polymerized onto the surface of **chopped** carbon **fibers** and then treated fibers were mixed into a polyamide thermoplastics. Mechanical properties of thus obtained structural plastic composite were determined. 7 refs.

9/5/5 (Item 1 from file: 31)
DIALOG(R)File 31:World Surface Coatings Abs
(c) 2003 Paint Research Assn. All rts. reserv.

00370842 WSCA ABSTRACT NUMBER: 83-07211 WSCA ID NUMBER: 167211
Finishing up with durability.
ANON
Engrs. Digest 1983, Vol 44 No 1, 10-3: BNF Abs 1983, No 648, Abs 83-03187. 1983

ABSTRACT: Paint application methods reviewed are by brushing, roller, dipping, flow and curtain coating barrel techniques, conventional, airless and electrostatic spraying, electrocoating and powder coating. Cleaning and pretreatment, e.g. blasting, pickling, etc. of steel substrates, and degreasing passivation, priming, barrier and topcoating are described. Use of alkyd resins on steel, epoxy or polyurethane modified alkyds for marine environments, paints for heavy duty conditions, e.g. offshore structures, solvent-free epoxy resins reinforced with **chopped** glass **fibre** , **polyurethane** based **coatings** for machine protection and repairable elastomeric coatings are outlined. Coatings for high and low temperature applications, for non-ferrous metals e.g. tinplate, vinyl resins, etc. and a white electrocoating one-coat finish for window-frames are reported.

9/5/6 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01609561 ORDER NO: AAD98-08164
PROCESSING DISCONTINUOUS FIBER POLYMER COMPOSITES: FIBER ALIGNMENT USING

ELECTRIC FIELDS AND MICROSTRUCTURE-PROPERTY RELATIONSHIPS

Author: VYAKARNAM, MURTY NARAYAN
Degree: PH.D.
Year: 1996
Corporate Source/Institution: MICHIGAN STATE UNIVERSITY (0128)

Discontinuous fiber polymer composites are finding widespread use because of their ease in processability and improvements in performance over un-reinforced polymers. However, their use is limited to non-structural applications due to the difficulties in controlling fiber orientation and fiber length reduction during melt processing of long fibers at high volume fractions. Micromechanics models indicate that the elastic behavior of an aligned discontinuous fiber composite should approach the behavior of a continuous fiber composite if the length of the reinforcement exceeds critical fiber length. This provided the motivation for research in the development of a process that has the potential to manufacture aligned discontinuous or short fiber polymer composites and subsequently investigate the microstructure-property relationships.

The unique combination of fiber alignment using electric fields in air and the recent advances in polymer powder processing resulted in a novel, high speed, solvent free Aligned Discontinuous Fiber (ADF) composite process. A semi-continuous laboratory prototype ADF process has been developed which has the following unit operations: alignment of conducting or insulating fibers in air using electric fields in an orientation chamber; **polymer** powder **coating** /impregnation of fibers, and; compression molding of the powder coated ADF preform into a composite. It has been found that alignment of dielectric E-glass fibers in air using electric fields is an extremely fast process (less than 1 second), but the non-buoyant nature of the fiber motion makes the alignment behavior very complicated and is a balance of polarization forces due to the electric fields; hydrodynamic forces due to fluid resistance, and; the rotational behavior of fibers during free fall. **Chopped** E-glass **fibers** of lengths ranging from 3 to 25 mm have been successfully aligned in air using A.C. electric fields of intensities ranging from 300 to 600 KV/m.

The ADF process has been demonstrated for chopped E-glass fiber and nylon12 matrix system and the properties of the composites fabricated using the process improve with an increase in fiber alignment and an increase in fiber length. Improvements in modulus and strength values of the ADF composites with fiber alignment ranged from 70 to 100%, when compared to equivalent composites that were manufactured with random fiber orientation. Micromechanics analysis based on fundamental reinforcement theories, indicated that in the chopped fiber-thermoplastic systems, it is the effective aspect ratio of the fiber aggregate (bundle) that controls the elastic behavior of ADF composites.

9/5/7 (Item 1 from file: 95)

00545680 M92033120565

Energy absorption of failing injection-molded rubber-coated glass/nylon composites

(Energieabsorption versagender spritzgegossener Verbundwerkstoffe aus Nylon und gummi-beschichteten Glasfasern)

Jao, SH

Advanced Composites Materials in Civil Engng. Structures, Proc. of the

Conf. sponsored by the American Soc. of Civil Engineers (ASCE), Las Vegas, NV, USA, 31.1.-1.2.19911991

ABSTRACT:
The use of a thin **rubber coating** on the fiber in a fibrous composite material has been shown to increase the composite low-speed impact resistance. The coating used was very thin compared to the fiber diameter, in order to preserve the other composite properties. From elastic consideration, the thin **rubber coating** was understood to have a direct effect upon the reduction of the stress concentration in the region near the fiber/matrix interface, especially at the **chopped fiber** end or at the matrix crack front reaching the fiber. If the possible existence of localized high stress regions is reduced, the material can be subjected to higher loading before global failure occurs. With the **rubber coating** , the high stress zones inside the material can spread out to a larger volume. There will be less chance of local damage initiation under the same loading level. The material will therefore show higher resistance, i.e., it will absorb more energy before failure. Three injeciton-molded glass/Nylon composites were tested for tensile failing energy. Significant increase of energy absorption was observed in one sample with a **rubber coating** . Interfacial bonding measured through microdebonding tests seemed to reveal the relation of the characteristic interfacial bonding and energy absorption.

9/5/8 (Item 1 from file: 119)
DIALOG(R)File 119:Textile Technol.Dig.

0450933 01013/83
PROCESS FOR PREPARING FRICTION CLUTCH FACING.
Guzy R. L.; Wargin R. V.
Patent Country: US
Patent No.: US 4356137 (US 4 356 137)
Assignees: Borg-Warner
Patent Date: 19821026 (Oct. 26, 1982,)
Original Patent Appl. No.: 214 841. Original Patent Appl. Country: USA
Priority Date: Appl. Dec. 10, 1980
Publication Year: 1982

A process for preparing a friction clutch facing in which at least one continuous strand impregnated with a friction resin composition is wound to form an annular disc preform and thermally cured under pressure is described. The improvement consists of impregnating the strand with an extrusion **coating** of solvent free **rubber** -modified thermosetting resin and **chopped** glass **fiber** , **chopped** aramid **fiber** , and/or aramid fiber pulp.

9/5/9 (Item 1 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00656938
TITLE: CONTROL OF STRUCTURE AND ASSESSMENT OF PROPERTIES OF INTERPHASE LAYER AT CARBON FIBRE/POLYMER MATRIX BOUNDARY
AUTHOR(S): Morozova E M; Yalich T S; Ergunova E L; Kiselev M R
SOURCE: International Polymer Science and Technology; 24, No.5, 1997,

p.T/60-2
ISSN: 0307-174X
ABSTRACT: Since bonding of the carbon fibre to the matrix in reinforced composites occurs through the boundary interphase layer (IPL), the properties of this layer and its chemical nature evidently determine the properties of the composite itself. When fibres of functional groups of different chemical nature are introduced into the surface layer, their entry into the near-boundary layer of the matrix is not ruled out. Knowledge of the nature of interaction of these three main components of the composite makes it possible to alter the properties of composites, increasing their quality and improving their durability. Investigations carried on composites based on carbon fibres and an epoxy matrix show that, depending on their chemical nature, the introduction of modifiers changes the glass transition temperature Tg of liquid mixtures of epoxy oligomer and their reactivity. A study is made of the influence of the above modifiers on the reaction of carbon fibres and a polysulphone matrix (PSK-1). Initial carbon fibres and carbon fibres treated with modifiers of different chemical nature are investigated. The specimens are in the form of a mixture of **chopped fibre** with polysulphone powder and films of PSK-1 polysulphone in a ratio of 1:1. A study is also made of free polysulphone films (PSK-1) and **films** of butadiene-styrene **copolymers** , and also mechanical mixtures of the individual components. 5 refs.

9/5/10 (Item 2 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00301844
TITLE: FIBRE REINFORCED CEMENTS
AUTHOR(S): Hannant D J
Editor(s): Kelly A; Mileiko S T; Rabotnov Yu N
CONFERENCE PROCEEDINGS: Fabrication of Composites.Handbook of Composites Vol.4
CORPORATE EDITOR: USSR,Institute of Solid State Physics; Moscow,State University
SOURCE: Amsterdam, Elsevier Science Publishers B.V., 1983, p.429-500. 627
ABSTRACT: Reinforced cements (particles below 5mm) and concretes (below 40mm) were reviewed in sections on materials (rheology, hardened-matrix properties in relation to the fibres, fibre types, asbestos, cellulose, glass, PP, steel, material costs), testing, theory, fabrication of fibre-reinforced concrete (including precast concretes containing chopped PP twine) and of sheets from cements and mortars (including alternatives to asbestos of cellulose **fibres** or chopped **polymer fibres** or continuous **film**). 72 refs.

9/5/11 (Item 3 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00269529
TITLE: GLASS FIBRE DIET
AUTHOR(S): Reed D
SOURCE: European Rubber Journal; 167, No.4, April 1985, p.18
ISSN: 0260-5317

ABSTRACT: Pilkington Bros. PLC is introducing a variety of coated glass fibre products aimed at different sectors of the rubber industry. The HG continuous glass fibre is intended for use in fan and V-belts and, possibly other products including hose and conveyor belting. A range of **chopped fibres** is described, based on the HG materials (an 11 micron glass fibre with an 18% **coating** of a **rubber** compound over a modified silane-based size). Various multi-ply systems can be supplied with differing degrees of twist and coating levels other than the standard 18% weight add-on.

9/5/12 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

117235916 CA: 117(24)235916b PATENT
Nitrile rubber-plasticized durable anticorrosion epoxy coating composition
INVENTOR(AUTHOR): Nezhvitskaya, G. B.; Danil'chenko, E. P.; Koval'chuk, L. N.; Lyutsko, V. A.; Selevich, A. F.
LOCATION: USSR
ASSIGNEE: "Tekhenergokhimprom" Scientific-Industrial Enterprises, Minsk; Belorussian State University
PATENT: USSR ; SU 1691378 A1 DATE: 911115
APPLICATION: SU 4606532 (881115)
CODEN: URXXAF LANGUAGE: Russian CITATION: Otkrytiya, Izobret. 1991, (42), 125 CLASS: C09D-163/02A; C09D-163/02J; C09D-109/02J; C08L-063/02
SECTION:
IDENTIFIERS: epoxy coating anticorrosion rubber plasticizer, nitrile rubber plasticizer epoxy coating, nitric acid corrosion protection epoxy
DESCRIPTORS:
Epoxy resins,bisphenol-based,uses...
coating compn. contg., nitrile rubber-plasticized, for protection against nitric acid
Coating materials,anticorrosive...
epoxy resin, nitrile rubber-plasticized, for protection against nitric acid
Glass fibers,chopped,uses...
filler, for anticorrosion nitrile rubber-plasticized epoxy coating compn.
Polyamines,polyethylene-...
hardeners, for anticorrosion nitrile rubber-plasticized epoxy coating compn.
Rubber,nitrile,uses...
plasticizer, for anticorrosion epoxy coating compn.

9/5/13 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

111235124 CA: 111(26)235124t JOURNAL
Effect of low temperatures on the damping properties of polymeric coatings made from Sprut adhesives
AUTHOR(S): Yakovlev, A. P.; Dyatchenko, S. V.
LOCATION: Inst. Probl. Prochn., Kiev, USSR
JOURNAL: Probl. Prochn. DATE: 1989 NUMBER: 5 PAGES: 102-5 CODEN:

PPCNBG ISSN: 0556-171X LANGUAGE: Russian
DESCRIPTORS:
Urethane polymers,uses and miscellaneous...
adhesives, glass fiber-filled, steel coated with, vibration damping properties of, at low temp.
Coating materials...
glass fiber-filled polyurethane adhesive-based, for steel, damping capacity of, low temp. effect on
Adhesives...
glass fiber-filled polyurethanes, for coating of steel, low-temp. effect on damping capacity of
Glass fibers,chopped,uses and miscellaneous...
polymeric coatings contg., vibration damping of, low temp. effect on

9/5/14 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

81093174 CA: 81(16)93174v PATENT
Coating electrical components
INVENTOR(AUTHOR): Lawson, Timothy E.
ASSIGNEE: Smiths Industries Ltd.
PATENT: Britain GB 1353321 DATE: 740515
APPLICATION: Britain GB 2225170 DATE: 700508
PAGES: 4 pp. CODEN: BRXXAA CLASS: B 44d
SECTION:
CA942003 Coatings, Inks, and Related Products
IDENTIFIERS: elec component varnish coating
DESCRIPTORS:
Urethane polymers,uses and miscellaneous...
coatings, contg. chopped glass fibers, for elec. app.
Electric apparatus...
dip coating of sharp edged
Coating process...
for elec. components
Glass fibers...
powd., spray coating of elec. components with

9/5/15 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

76101345 CA: 76(18)101345r PATENT
Emulsion paints
INVENTOR(AUTHOR): Kaschny, Rosemarie; Paschke, Paul; Theil, Wolfgang
PATENT: Germany (East) DD 78040 DATE: 701205
APPLICATION: Germany (East) DATE: 690408
PAGES: 2 pp. CODEN: GEXXA8 CLASS: C 09d
SECTION:
CA942000 Coatings, Inks, and Related Products
IDENTIFIERS: cellulose fiber coating additive, polyvinyl acetate speckled coating
DESCRIPTORS:
Rayon,uses and miscellaneous...
vinyl acetate polymer coatings contg. chopped fibers of, decorative

Coating materials...
vinyl acetate polymers, contg. carboxymethyl cellulose and colored rayon chopped fibers, decorative
CAS REGISTRY NUMBERS:
9000-11-7 vinyl acetate polymer coatings contg. colored rayon chopped fibers and, decorative

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Set     Items   Description
S1    3976645   FILM? ? OR COATING? ?
S2    4227592   POLYMER?? OR COPOLYMER?? OR RUBBER OR POLYCHLOROPRENE OR N-
            EOPRENE OR SYTRENE()(ISOPRENE OR BUTADIENE OR ETHYLENE)(2W)ST-
            YRENE OR SIS OR SBS OR NITRILE OR VINYL()CHLORIDE OR PVC OR P-
            OLYURETHANE OR POLYUREA
S3       3428   CHOP????(2N)(FIBER? ? OR FIBRE? ?)
S4     251986   (GLASS OR STEEL OR ARAMID OR POLYETHYLENE OR PARTICLE()FIL-
            LED)(2N)(FIBER? ? OR FIBRE? ?)
S5     358999   S1(3N)S2
S6         30   S3(S)S5
S7         25   RD (unique items)
S8         15   S7 NOT PY>1997
S9         15   S8 NOT PD>19971231
? show files
File   2:INSPEC 1969-2003/May W1
         (c) 2003 Institution of Electrical Engineers
File   6:NTIS 1964-2003/May W2
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2003/May W1
         (c) 2003 Elsevier Eng.  Info. Inc.
File  25:Weldasearch 1966-2002/Nov
         (c) 2003 TWI Ltd
File  31:World Surface Coatings Abs 1976-2003/Apr
         (c) 2003 Paint Research Assn.
File  34:SciSearch(R) Cited Ref Sci 1990-2003/May W1
         (c) 2003 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2003/Apr
         (c) 2003 ProQuest Info&Learning
File  63:Transport Res(TRIS) 1970-2003/Apr
         (c) fmt only 2003 Dialog Corp.
File  65:Inside Conferences 1993-2003/May W1
         (c) 2003 BLDSC all rts. reserv.
File  67:World Textiles 1968-2003/Apr
         (c) 2003 Elsevier Science Ltd.
File  94:JICST-EPlus 1985-2003/May W1
         (c)2003 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2003/Apr W4
         (c) 2003 FIZ TECHNIK
File  96:FLUIDEX 1972-2003/Apr
         (c) 2003 Elsevier Science Ltd.
File  99:Wilson Appl. Sci & Tech Abs 1983-2003/Mar
         (c) 2003 The HW Wilson Co.
File 103:Energy SciTec 1974-2003/Apr B2
         (c) 2003 Contains copyrighted material
File 105:AESIS 1851-2001/Jul
         (c) 2001 Australian Mineral Foundation Inc
File 118:ICONDA-Intl Construction 1976-2003/May
         (c) 2003 Fraunhofer-IRB
File 119:Textile Technol.Dig. 1978-2003/May
         (c) 2003 Inst.of Textile Technology
File 144:Pascal 1973-2003/May W1
         (c) 2003 INIST/CNRS
File 240:PAPERCHEM 1967-2003/May W2
         (c) 2003 Elsevier Eng. Info. Inc.
File 248:PIRA 1975-2003/May W1
         (c) 2003 Pira International
File 252:Packaging Sci&Tech 1982-1997/Oct
         (c) 1997 by Fraunhofer-ILV, Germany
File 315:ChemEng & Biotec Abs 1970-2003/Apr
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File 323:RAPRA Rubber & Plastics 1972-2003/May
(c) 2003 RAPRA Technology Ltd
File 369:New Scientist 1994-2003/Apr W4
(c) 2003 Reed Business Information Ltd.
File 370:Science 1996-1999/Jul W3
(c) 1999 AAAS
File 399:CA SEARCH(R) 1967-2003/UD=13820
(c) 2003 American Chemical Society
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info

FT Patents

12/5,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00781133
Fiber reinforced functionalized polyolefin composite

PATENT ASSIGNEE:
AZDEL, INC., (1516840), 925 Washburn Switch Road, Shelby, North Carolina 28150, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;NL;PT;SE)
INVENTOR:
van de Grampel, Hendrik Theodoris, Koepeldwarsstraat 1, NL-4611 JV Bergen op Zoom, (NL)
Hou, Yonsheng, 908 Oakside Lane, Pittsburgh, Pennsylvania 15229, (US)
Spencer, Dennis Odell, 3042 Longwood Drive, Shelby, North Carolina 28152, (US)
Swisher, Robert Gregory, 172 Gordon Avenue, Pittsburgh, Pennsylvania 15218, (US)
Thimons, Thomas Vincent, 2874 Grandview Drive, Allison Park, Pennsylvania 15101, (US)
LEGAL REPRESENTATIVE:
Schoppe, Fritz, Dipl.-Ing. (55463), Patentanwalt, Georg-Kalb-Strasse 9, 82049 Pullach, (DE)

PATENT (CC, No, Kind, Date): EP 729829 A2 960904 (Basic)
EP 729829 A3 970402
APPLICATION (CC, No, Date): EP 95106578 950502;
PRIORITY (CC, No, Date): US 396122 950228
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; NL; PT; SE
INTERNATIONAL PATENT CLASS: B32B-017/04; C03C-025/02;

ABSTRACT EP 729829 A2
A composite material consisting of continuous random glass mats with a new non-peroxide sizing chemistry, polypropylene and a functionalized polypropylene. This composite gives unexpectedly higher performance in bumper beam applications. The functionalized polypropylene contains anhydride functionalities, which are preferably maleic anhydride. (see image in original document)
ABSTRACT WORD COUNT: 59

LEGAL STATUS (Type, Pub Date, Kind, Text):
Examination: 20000209 A2 Date of dispatch of the first examination report: 19991229
Application: 960904 A2 Published application (A1with Search Report ;A2without Search Report)
Change: 970205 A2 Representative (change)
Search Report: 970402 A3 Separate publication of the European or International search report
Examination: 970917 A2 Date of filing of request for examination: 970717
LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION glass mat, such as E-glass mat, is preferred, it is also possible to use **chopped glass fibers** of at least a half (1/2) inch in length treated with non-peroxide sizing...

...specifically an aqueous composition of a polymeric amine and amine-reactable organosilane, along with a **film** -forming **polymer** , an

emulsified polyolefin and a non-volatile carboxylic acid as described in co-pending application...

12/5,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00679619
Fiber reinforced functionalized polyolefin composites.
PATENT ASSIGNEE:
AZDEL, INC., (1516840), 925 Washburn Switch Road, Shelby, North Carolina 28150, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;NL;PT;SE)
INVENTOR:
van de Grampel, Hendrik Theodorus, Koepeldwarsstraat 1, NL-4611 JV Bergen Op Zoom, (NL)
Swisher, Robert Gregory, 172 Gordon Avenue, Pittsburgh, Pennsylvania 15218, (US)
Hou, Yongsheng, 908 Oakside Lane, Pittsburgh, Pennsylvania 15229, (US)
Thimons, Thomas Vincent, 2874 Grandview Drive, Allison Park, Pennsylvania 15101, (US)
Spencer, Dennis Odell, 3042 Longwood Drive, Shelby, North Carolina 28152, (US)
LEGAL REPRESENTATIVE:
Schoppe, Fritz, Dipl.-Ing. (55463), Patentanwalt, Georg-Kalb-Strasse 9, D-82049 Pullach, (DE)
PATENT (CC, No, Kind, Date): EP 651003 A1 950503 (Basic)
APPLICATION (CC, No, Date): EP 94103426 940307;
PRIORITY (CC, No, Date): US 144847 931029
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; NL; PT; SE
INTERNATIONAL PATENT CLASS: C08J-005/08; C08L-023/12; C08K-003/04; B60R-019/03;

ABSTRACT EP 651003 A1
A composite material consisting of continuous random glassmats with a new non-peroxide sizing chemistry, polypropylene and a functionalized polypropylene. This composite gives unexpectedly higher performance in bumper beam applications. The functionalized polypropylene contains anhydride functionalities, which are preferably maleic anhydride. (see image in original document)
ABSTRACT WORD COUNT: 47

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	950503 A1	Published application (A1with Search Report ;A2without Search Report)
Examination:	950503 A1	Date of filing of request for examination: 940307
Examination:	960904 A1	Date of despatch of first examination report: 960717
Withdrawal:	970806 A1	Date on which the European patent application was deemed to be withdrawn: 970128

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION While a glassmat, such as E-glassmat, is preferred, it is also possible to use **chopped glass fibers** of at least a half (1/2) inch in length treated with non-peroxide sizing...

...specifically an aqueous composition of a polymeric amine and amine-reactable organosilane, along with a **film** -forming **polymer** , an emulsified polyolefin and a non-volatile carboxylic acid as described in co-pending application...

12/5,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00640605
METHOD FOR DETERMINING QUALITY OF DISPERSION OF GLASS FIBERS IN A THERMOPLASTIC RESIN PREFORM LAYER AND A PREFORM LAYER CHARACTERIZED THEREBY

PATENT ASSIGNEE:
E.I. DU PONT DE NEMOURS AND COMPANY, (200580), 1007 Market Street, Wilmington Delaware 19898, (US), (applicant designated states: CH;DE;ES;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
WEEKS, Gregory, Paul, 108 Cameron Drive, Hockessin, DE 19707, (US)
VAIDYANATHAN, Akhileswar, Ganesh, 44 Robin Court, Hockessin, DE 19707, (US)
MERRILL, Michael, James, 26 Scottie Lane, New Castle, DE 19720, (US)
RUBIN, Barry, 99 Fox Valley Lane, Glen Mills, PA 19342, (US)
JANSSON, Peter, Allan, 19 Arthur Drive, R.D. 1, Hockessin, DE 19707, (US)
LEGAL REPRESENTATIVE:
Jones, Alan John et al (32391), CARPMAELS & RANSFORD 43 Bloomsbury Square , London, WC1A 2RA, (GB)

PATENT (CC, No, Kind, Date): EP 676047 A1 951011 (Basic)
EP 676047 B1 970702
WO 9415197 940707
APPLICATION (CC, No, Date): EP 94905416 931221; WO 93US12293 931221
PRIORITY (CC, No, Date): US 995184 921222
DESIGNATED STATES: CH; DE; ES; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: G01N-021/88; G06T-001/00; B29B-015/10;
NOTE:
No A-document published by EPO
LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	941019	A International application (Art. 158(1))
Application:	951011	A1 Published application (A1with Search Report ;A2without Search Report)
Examination:	951011	A1 Date of filing of request for examination: 950522
Examination:	960306	A1 Date of despatch of first examination report: 960122
Grant:	970702	B1 Granted patent
Oppn None:	980624	B1 No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION 34.09 kg (75 pounds) of 0.5 inch (1.27 cm.) cut length wet **chop** E- **glass** **fiber** , OCF Type 133A, the surface of the fiber having a sizing comprising a silane keying agent and **polyurethane** **film** forming agent, of average diameter approximately 13 microns, was added to the water and agitated...

12/5,K/4 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00509747
MICROPOROUS MATERIAL
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: DE;FR;GB;IT)
INVENTOR:
SCHWARZ, Richard, A., 2026 Bridger Road, Akron, OH 44312, (US)
KEIM, William, 889 North Columbine Drive, Barberton, OH 44203, (US)
LEGAL REPRESENTATIVE:
Fleischer, Holm Herbert et al (79601), Patentanwalte Dr. Michael Hann, Dr. Hans-Gunther Sternagel, Dr. Hans Dorries, Sander Aue 30, D-51465 Bergisch Gladbach, (DE)
PATENT (CC, No, Kind, Date): EP 504366 A1 920923 (Basic)
EP 504366 A1 930310
EP 504366 B1 960703
WO 9206577 920430
APPLICATION (CC, No, Date): EP 91918165 910919; WO 91US6821 910919
PRIORITY (CC, No, Date): US 596175 901010
DESIGNATED STATES: DE; FR; GB; IT
INTERNATIONAL PATENT CLASS: B41M-005/00; C08L-023/06;
CITED PATENTS (EP A): EP 289859 A; EP 335613 A; EP 288021 A; DE 3617318 A
NOTE:
No A-document published by EPO
LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	920923 A1	Published application (A1with Search Report ;A2without Search Report)
Examination:	920923 A1	Date of filing of request for examination: 920225
Change:	921125 A1	Representative (change)
Search Report:	930310 A1	Drawing up of a supplementary European search report: 930121
Examination:	950208 A1	Date of despatch of first examination report: 941222
Grant:	960703 B1	Granted patent
Oppn None:	970625 B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION about 15 percent by weight. Examples of such materials include antioxidants, ultraviolet light absorbers, reinforcing **fibers** such as **chopped glass fiber** strand, dyes, pigments, and the like. The balance of the microporous material, ...ink, or impregnant applied for one or more special purposes is essentially the thermoplastic organic **polymer** .
On a **coating** -free, printing ink free, impregnant-free, and pre-bonding basis, pores constitute at least about...

12/5,K/5 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00474403

Wet laid fibrous thermoplastic material and aqueous dispersion for producing same

PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;DE;ES;FR;GB;IT;NL)
INVENTOR:
Parrinello, Luciano Michael, 2709 Champlain Drive, Allison Park, Pennsylvania 15101, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46853), Patentanwalte Dr. Michael Hann, Dr. H.-G. Sternagel, Dr. H. Dorries, Sander Aue 30, 51465 Bergisch Gladbach, (DE)

PATENT (CC, No, Kind, Date): EP 491204 A2 920624 (Basic)
EP 491204 A3 921209
EP 491204 B1 970115
APPLICATION (CC, No, Date): EP 91120540 911129;
PRIORITY (CC, No, Date): US 622671 901205
DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: C08J-005/06; C08J-003/03; C08K-007/14; D21F-011/00; D21H-013/40; C03C-025/02; C08L-023/12; C08L-051/06
CITED PATENTS (EP A): EP 353493 A; US 4728573 A; GB 2046324 A; GB 2046324 A

ABSTRACT EP 491204 A2

A web of nonwoven fibers and thermoplastic matrix polymer is provided that is capable of yielding improved physical properties for articles molded from the web. Also provided are the aqueous dispersion to produce the web and the dried web as a laminate so that it can be molded into shaped articles. The web in addition to the fibers and thermoplastic matrix polymer has a chemically modified thermoplastic polymer. This material can be added to the web by direct addition to the aqueous dispersion or by presence in a mat binder which is applied to the web. Generally, the amount of the chemically modified thermoplastic material present in the web is in the range of around 0.1 to 20 weight percent of the web. When the chemically coupled thermoplastic polymer is added as a mat binder, it can be accompanied by an electron donating organo coupling agent, a stabilizing agent such as one or more carboxylic acids and/or anhydrides which may be monocarboxylic, polycarboxylic aliphatic or cyclic. Additionally, the mat binder can have a film-forming polymer.
ABSTRACT WORD COUNT: 177

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	920624 A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	921209 A3	Separate publication of the European or International search report
Examination:	930519 A2	Date of filing of request for examination: 930322
Examination:	940713 A2	Date of despatch of first examination report: 940526
Grant:	970115 B1	Granted patent
Oppn None:	980107 B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION a surface treatment that aids in dispersing them in the aqueous dispersion. Suitable examples of **chopped glass fibers** that can be used are those having a surface treatment having at least one water-soluble, **film** -forming **polymer** or **copolymer** that has an

intrinsic viscosity of less than 500 centipoise, a matrix resin compatible organo...

...10 weight percent epichlorohydrin available from Georgia Pacific as GP2925 material. Another suitable example are **glass fibers** having a surface treatment of a crosslinkable **polyurethane film** -forming **polymer** , at least one organo functional silane coupling agent, a copolymer of at least one polymerizable...

12/5,K/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00459645
Chemical composition to produce water soluble curable films on fibrous surfaces and so treated glass fibers
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;ES;FR;GB;IT;LI;NL)
INVENTOR:
Parrinello, Luciano Michael, 2709 Champlain Drive, Allison Park, Pa. 15101, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel, Sander Aue 30, 51465 Bergisch Gladbach, (DE)
PATENT (CC, No, Kind, Date): EP 450638 A1 911009 (Basic)
EP 450638 B1 960612
APPLICATION (CC, No, Date): EP 91105389 910405;
PRIORITY (CC, No, Date): US 505309 900405
DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; D21H-013/40;
CITED PATENTS (EP A): US 4810576 A; EP 170981 A; US 4235764 A

ABSTRACT EP 450638 A1
The chemical composition of the present invention is capable of forming a water soluble but curable film on fibers treated with the aqueous chemical composition to produce wet chopped strands of the fibers. In one aspect the chemical composition has a water soluble **film** -forming **polymer** with an intrinsic viscosity less than around 150 centipoise present in an effective amount to form a water soluble film. In addition the composition has at least one cationic lubricant or lubricating surfactant, polymer matrix-compatible organo silane coupling agents, epichlorohydrin polyamide adduct, and water. The **film** forming **polymer** can be poly(vinylalcohol), poly(vinylpyrrolidone), or poly(hydroxyalkylcellulose) or mixtures thereof and the like. The organo silane coupling agent can be a lubricated alkoxylated gamma aminoalkyltrialkoxy silane, a polyamino organo silane, mercapto functional organo silane, vinyl functional organo silane, or a ureido functional organo silane or a mixture thereof. The amounts of the silane, lubricant and adduct are, respectively, around 1 to 20, around 0.5 to 15 and around 0.5 to around 15 all based on the weight percent of the nonaqueous solids of the chemical composition. **Glass fibers** treated with the chemical composition are particularly useful as wet **chopped glass fiber** strands for reinforcing thermoplastic polymers, where the fiber reinforced polymer in made by a foamed wet-laid process having the

thermoplastic polymer present from particles in the pulping medium.
ABSTRACT WORD COUNT: 223

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 911009 A1 Published application (A1with Search Report ;A2without Search Report)
Examination: 920205 A1 Date of filing of request for examination: 911209
Examination: 940309 A1 Date of despatch of first examination report: 940121
Grant: 960612 B1 Granted patent
Oppn None: 970604 B1 No opposition filed
LANGUAGE (Publication,Procedural,Application): English; English; English

12/5,K/7 (Item 7 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00399928
Method and product to enhance electrical conductivity of films containing conductive carbon black.
PATENT ASSIGNEE:
MILLIKEN RESEARCH CORPORATION, (203943), Post Office Box 1927 920 Milliken Road, Spartanburg South Carolina 29304, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Fowler, James Elmer, 205 Wedgewood Drive, Spartanburg, South Carolina 29302, (US)
LEGAL REPRESENTATIVE:
Pacitti, Pierpaolo A.M.E. et al (43011), Murgitroyd and Company 373 Scotland Street, Glasgow G5 8QA, (GB)
PATENT (CC, No, Kind, Date): EP 395252 A2 901031 (Basic)
EP 395252 A3 911023
APPLICATION (CC, No, Date): EP 90303811 900409;
PRIORITY (CC, No, Date): US 342006 890424; US 475399 900205
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: B29C-059/10; H05F-003/02;
CITED PATENTS (EP A): DE 1171967 B; US 3829408 A; FR 1479767 A; US 3201668 A; US 4662969 A; US 3880966 A; US 4208696 A; US 3891786 A

ABSTRACT EP 395252 A2
Method to enhance the electrical conductivity of a carbon-containing film material (10) such as a hot melt for carpet backing. The method involves applying a plurality of arcs across the surface of the film passing under a plurality of electrodes (15) to create a plurality of small crater-like holes (25) in the surface of the film. The film material may be adhered to a carpet material and the crater-like holes (25) acting to increase the anti-static property of the carpet.
ABSTRACT WORD COUNT: 84

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 901031 A2 Published application (A1with Search Report ;A2without Search Report)
Search Report: 911023 A3 Separate publication of the European or International search report

Change:	911113 A2	Obligatory supplementary classification (change)
Examination:	920429 A2	Date of filing of request for examination: 920227
Change:	930303 A2	Representative (change)
Examination:	930602 A2	Date of despatch of first examination report: 930416
Withdrawal:	940223 A2	Date on which the European patent application was deemed to be withdrawn: 930827

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION and calcium carbonate filler were made conductive by the addition of 1% by weight of **chopped** carbon **fiber** and .3% by weight of EC-600JD, a conductive carbon black manufactured by Akzo Chemie America. The melt was cast into film, while the molten thermoplastic **polymer** supply and **film** forming roll surfaces were at the temperatures listed in the following tables. The films contained a nonwoven **glass** **fiber** stabilizing membrane and are suitable as a backing material for antistatic carpet.

The conditions used...

12/5,K/8 (Item 8 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00355683

Chemically treated inorganic oxide fibers with thermal stability suitable for high temperature polymers.

PATENT ASSIGNEE:

PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;ES;FR;GB;IT;LI;NL)

INVENTOR:

Watkins, Johnson Clifford, 4205 Haddon Place, Wexford Pennsylvania 15909, (US)

Swisher, Robert Gregory, 172 Gordon Street, Pittsburgh Pennsylvania 15218, (US)

LEGAL REPRESENTATIVE:

Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, D-51465 Bergisch Gladbach, (DE)

PATENT (CC, No, Kind, Date): EP 374593 A1 900627 (Basic)
APPLICATION (CC, No, Date): EP 89122532 891206;
PRIORITY (CC, No, Date): US 283091 881212
DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C08J-005/08;
CITED PATENTS (EP A): DE 2430616 A; DE 2430616 A; EP 201691 A; WO 8601811 A ; US 3730759 A

ABSTRACT EP 374593 A1

Chemically treated inorganic oxide substrates of the present invention have good adhesion to polymeric materials with high process temperatures or good thermal resistance. The chemical treatment exists on the substrate as a volatile-reduced residue of a treatment comprised of at least one film forming polymer that is essentially free of polyvinylacetate homopolymer and polyacrylic homopolymers and copolymers, at least one fiber lubricant, an organofunctional silane coupling agent present in an amount up to around an effective coupling agent amount, at

least one organo alkoxide of a metal selected from the group comprising titanium and zirconium and a carrier for application of the chemical treatment to the substrate. The amount of the film forming polymer and lubricant are effective film forming and lubricating amounts, respectively. The amount of the organo alkoxide of the metal is an amount in the range of greater than 10 parts per 100 parts of the film forming polymer and up to at least an effective coupling agent amount. For instance, the chemical treating composition can be an aqueous composition applied to glass fibers. In this instance the film forming polymer is selected from epoxy polymers, polyurethane polymers and mixtures thereof as separate polymers or as copolymers where the total amount is an effective film forming amount. The fiber lubricant is a nonionic fiber lubricant of a polyoxyalkylene including polyethylene oxide and polypropylene oxide copolymers where the amount of the polypropylene oxide moiety is less than around 80 weight percent of the copolymer. With the specified combination of film forming materials the organo alkoxide of the metal like alkanolamine titanates or zirconates is present in an amount up to and including an effective coupling agent amount. Also, there may be present at least one organofunctional silane coupling agent like an aminosilane coupling agent or glycidoxy or ureido functional silane coupling agents. When both the silane and the organo alkoxide of the metal are present, the total amount in the aqueous composition can comprise an effective coupling agent amount wherein the ratio of one to the other is in the range of around 1 to 6 to 6 to 1. These chemically treated glass fibers find particular suitability in reinforcing high temperature processed polymers and thermal resistant polymers such as polyphenylenesulfide, polyethylene imide and polyethersulfone and the like.

ABSTRACT WORD COUNT: 387

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	900627 A1	Published application (A1with Search Report ;A2without Search Report)
Examination:	901003 A1	Date of filing of request for examination: 900809
Examination:	910626 A1	Date of despatch of first examination report: 910513
Change:	941005 A1	Representative (change)
Withdrawal:	960110 A1	Date on which the European patent application was withdrawn: 951107

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION the polyurethane polymer. Additional amounts of the epoxy polymer may reduce some handling characteristics of **chopped** sized **glass fibers** . Specifically the filamentation resistance may be decreased, while additional amounts of polyurethane polymer may result in less thermal resistance of a reinforced composite. Generally the amount of the **film** forming **polymer** is an effective **film** forming amount. This amount results in the film residue upon evaporation of the volatiles or curing of the curing agent with **film** forming **polymer** . The effective **film** forming amount generally ranges from 1 to 25 weight percent of the total size including...

12/5,K/9 (Item 9 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00351805

Encapsulated electrical or electronic device.

PATENT ASSIGNEE:
E.I. DU PONT DE NEMOURS AND COMPANY, (200580), 1007 Market Street, Wilmington Delaware 19898, (US), (applicant designated states: BE;CH;DE;ES;FR;GB;IT;LI;NL;SE)
INVENTOR:
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Solenberger, John C., 5 Wood Drive, Wilmington Delaware 19806, (US)
LEGAL REPRESENTATIVE:
Abitz, Walter, Dr.-Ing. et al (1202), Patentanwalte Abitz & Partner Postfach 86 01 09, D-81628 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 375851 A2 900704 (Basic)
EP 375851 A3 901128
EP 375851 B1 950823
APPLICATION (CC, No, Date): EP 89118314 891003;
PRIORITY (CC, No, Date): US 251772 881003
DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; NL; SE
INTERNATIONAL PATENT CLASS: H01B-003/00;
CITED PATENTS (EP A): EP 135310 A; US 4138525 A; FR 2003774 A; DE 2533416 A ; US 3030597 A; EP 206254 A; EP 257466 A; WO 8600629 A
CITED REFERENCES (EP A):
RESEARCH DISCLOSURE, no. 288, April 1988, page 221, abstract no. 28847, New York, NY, US; "Electrical resistive, thermally conductive diamond coating for integrated circuit chips";

ABSTRACT EP 375851 A2
An encapsulated electrical or electronic device having a first layer of electrically insulating material which is then covered by another resin layer filled with thermally conductive fibers such as mesophase pitch based carbon fibers.
ABSTRACT WORD COUNT: 38

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	900704	A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	901128	A3	Separate publication of the European or International search report
Examination:	910227	A2	Date of filing of request for examination: 901227
Examination:	930519	A2	Date of despatch of first examination report: 930405
Grant:	950823	B1	Granted patent
Oppn None:	960814	B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION grade Du Pont Rynite(R) FR-530 NC-10 polymer which is a 30 wt.% **chopped glass fiber** reinforced flame retarded polyethylene terephthlate polymer is heated to a melt temperature of 280(degree...

...retarded polyethylene terephthalate polymer made by compression molding alternate layers of flame retarded polyethylene terephthalate **polymer film** and carbon fiber bats made according to the disclosure in EP-A-88 114 335...

12/5,K/10 (Item 10 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00346657
Chemically treated shapes, fillers and reinforcement for polymer matrices.
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Parrinello, Luciano Michael, 8804 West Court Apt. 301, Allison Park Pennsylvania, 15101, (US)
Raghupathi, Narasimhan, 3978 Mury Highland Circle, Murrysville Pennsylvania, 15668, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46852), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, W-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 353493 A1 900207 (Basic)
EP 353493 B1 930310
APPLICATION (CC, No, Date): EP 89112621 890711;
PRIORITY (CC, No, Date): US 219700 880715
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C08J-005/08;
CITED PATENTS (EP A): EP 83057 A; EP 683 A; EP 206189 A; EP 53797 A

ABSTRACT EP 353493 A1
Chemically treated glass shapes have a moisture-reduced residue of a chemical treating composition having: a first **film** forming **polymer** that is a thermoplastic polyester **film** forming **polymer** , a second **film** forming **polymer** that is an acrylic-type copolymer, at least one organosilane coupling agent selected from epoxy functional organosilane coupling agents and amino-functional organosilane coupling agents and mixtures thereof, at least one cationic lubricant and a carrier. The ratio of amounts of the first **film** forming **polymer** to the second **film** forming **polymer** is in the range of around 1:1 to 99:1. The chemically treated shapes can be in the form of beads, flakes, **chopped** or milled **fibers** , continuous fibers, strands, or bundles of fibers and yarn, and mats of continuous strand and/or chopped strand. The chemically treated **glass fibers** in mat form are particularly suitable for reinforcing thermoplastic polyester polymers that are to be compression molded from the laminate of the polymer and the reinforcing material.
ABSTRACT WORD COUNT: 160
LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 900207 A1 Published application (A1with Search Report ;A2without Search Report)
Examination: 900328 A1 Date of filing of request for examination: 900130
Examination: 910612 A1 Date of despatch of first examination report: 910430
Grant: 930310 B1 Granted patent
Lapse: 931110 B1 Date of lapse of the European patent in a Contracting State: NL 930310
Oppn None: 940302 B1 No opposition filed
LANGUAGE (Publication,Procedural,Application): English; English; English

...at least one cationic lubricant and a carrier. The ratio of amounts of the first **film** forming **polymer** to the second **film** forming **polymer**

is in the range of around 1:1 to 99:1. The chemically treated shapes can be in the form of beads, flakes, **chopped** or milled **fibers** , continuous fibers, strands, or bundles of fibers and yarn, and mats of continuous strand and/or chopped strand. The chemically treated **glass fibers** in mat form are particularly suitable for reinforcing thermoplastic polyester polymers that are to be...

12/5,K/11 (Item 11 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00339637
Chemicaly treated glass fibers for reinforcing thermosetting polymer matrices.
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Narasimhan,Raghupathi, 3978 Mury Highland Circle, Murrysville, Pa. 15668, (US)
Watson, James Chesley, 159 Greylock Drive, Pittsburgh, PA. 15235, (US)
Schell, Phillip Laverne, 107 Kinsdale Drive, Pittsburgh, PA. 15237, (US)
Melle, David Thomas, 1019 Bernice, Allison Park, Pa. 15101, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, W-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 335283 A2 891004 (Basic)
EP 335283 A3 900704
EP 335283 B1 920603
APPLICATION (CC, No, Date): EP 89105331 890325;
PRIORITY (CC, No, Date): US 175829 880331
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C08J-005/08;
CITED PATENTS (EP A): EP 206189 A; EP 83057 A; US 4394475 A

ABSTRACT EP 335283 A2
The chemically treated fibers have the dried residue of an aqueous chemical treating composition having a bisphenol A polyester film forming polymer compatible with and soluble in the matrix polymer, poly(vinyl acetate) polymeric film former, acryloxy-containing or methacryloxy-containing organo coupling agent in an effective coupling agent amount, cationic fiberous lubricant in an effective lubricating amount, with or without a cationic organic quaternary ammonium salt having alkoxy moieties, and with water in an amount to give a total solid for the aqueous chemical treating composition in the range of about 1 to about 30 weight percent. In addition, the aqueous chemical treating composition can have one or more amino-containing organofunctional silane coupling agents. The amount of the organic quaternary ammonium agent generally is in the range of from 0.05 to around 0.4 weight percent of the aqueous chemical treating composition. When this agent is not in the aqueous chemical treating composition, a secondary application of an antistatic agent is performed. The chemically treated glass fibers can be produced in any form such as chopped strand or continuous strand for combination with polymeric matrices including both filled and unfilled systems for producing reinforced polymeric matrices such as glass fiber

reinforced polymeric panels which can be clear, translucent or pigmented.

ABSTRACT WORD COUNT: 211

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 891004 A2 Published application (A1with Search Report ;A2without Search Report)
Search Report: 900704 A3 Separate publication of the European or International search report
Examination: 901031 A2 Date of filing of request for examination: 900905
Examination: 910508 A2 Date of despatch of first examination report: 910322
Grant: 920603 B1 Granted patent
Oppn None: 930526 B1 No opposition filed
LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION a non-linear production process for fiber reinforced polymer panels.

EP-A- 206 189 discloses **glass** fiber strands having a **plurality** of glass **fibers** , where the **glass fibers have** at **least** a portion of their surfaces covered with the dried residue of an aqueous treating composition having water soluble, dispersible or emulsifiable **film** -forming **polymer having** polyester and epoxy functionality, organo functional coupling agent, cationic fiber lubricant in an effective lubricating amount, antistatic agent and water, characterized in that:

a. the **film - forming** polymer is one or more bisphenol A polyesters,

b. the organo functional coupling agent selected...
...methacryloxy-containing coupling agents, in an effective coupling agent amount,

c. the antistatic agent is **a cationic** organic quaternary ammonium salt having alkoxy moieties having an acid number of **at least** around 10 present in an amount of about .05 to about 0.4 weight percent ...

12/5,K/12 (Item 12 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00316519
Glass fiber composite.
PATENT ASSIGNEE:
EXXON RESEARCH AND ENGINEERING COMPANY, (200821), P.O.Box 390, 180 Park Avenue, Florham Park, New Jersey 07932, (US), (applicant designated states: DE;FR;GB;IT;NL)
INVENTOR:
Rerup, Hans J., 22 Homewood Avenue, Hamilton Ontario, L8P 2M2, (CA)
Duvdevani, Ilan, 559 Nordhoff Drive, Leonia New Jersey 07605, (US)
Drake, Evelyn Nobles, RD 1, Moutain Road, Lebanon New Jersey 08833, (US)
LEGAL REPRESENTATIVE:
Fletcher Watts, Susan J. et al (58892), ESSO Engineering (Europe) Ltd. Patents & Licences Mailpoint 72 Esso House Ermyn Way, Leatherhead, Surrey KT22 8XE, (GB)
PATENT (CC, No, Kind, Date): EP 308240 A1 890322 (Basic)
EP 308240 B1 920617

APPLICATION (CC, No, Date): EP 88308581 880916;
PRIORITY (CC, No, Date): US 97699 870917
DESIGNATED STATES: DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C04B-014/44;
CITED PATENTS (EP A): US 3642728 A; US 3870841 A; US 4543385 A; US 3513049 A

ABSTRACT EP 308240 A1

A glass fiber composite comprises glass fibers and a polymeric coating formed from an organic solution of an interpolymer complex of a neutralized sulfonated polymer and an amine-containing polymer.

ABSTRACT WORD COUNT: 33

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	890322	A1	Published application (A1with Search Report ;A2without Search Report)
Change:	890927	A1	Representative (change)
Examination:	891102	A1	Date of filing of request for examination: 890829
Examination:	910403	A1	Date of despatch of first examination report: 910214
Grant:	920617	B1	Granted patent
Oppn None:	930609	B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION propane diol, monoethyl ether of ethylene glycol and n-ethylformamide.

The elastomeric coating of the **glass fibers** is done by applying the organic solution of the interpolymer complex over the substance at...

...without the aid of forced drying gas, such as air or nitrogen gas. This step **is called** the drying **process** . The drying gas temperature can be from ambient temperature up to the boiling point of the organic solvent system. **Preferably the** temperature of the drying gas is between 20(degree) **C** to **100** (degree)C. The most preferred temperature of the drying gas should be 70(degree)C for fast evaporation of the organic solvent system. After **drying the** thickness of the applied coating should be 0.1 micrometer to 100 micrometers, most preferably...

...containing elastomeric component is at any of the layers but preferably in the layer closest **to** the **glass fibers** to provide the defect free thin skin over the **glass fiber** strand. Most preferred, the coating thickness should be 0.2 to 20 micrometers for both...

...the concentration should be 5 weight percent. The coating solution of the interpolymeric complex can **be applied** in single or multiple layers, depending on the desired coating thickness. In any instance, the organic solvent system is evaporated after each layer application.

The **glass fiber** strands or **glass** rovings used in the instant invention are based on any known glass compositions such as boro-silicates but preferably **glass fibers** of the alkali resistant type commonly known as AR **glass** . The **fibers** may or may not be sized (individually **coated** with **coatings** known in the art for improved handling and performance). The strands or bundles of **glass fibers** used in the instant invention contain 2 to 2000 fibers, most preferably 50 to 800...

12/5,K/13 (Item 13 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00297039
Chemically treated fibers and method of preparing and method of using to reinforce polymers.
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Johnson Clifford Watkins, 4205 Haddon Place, Wexford, PA 15090-Allegheny County, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, D-51465 Bergisch Gladbach, (DE)
PATENT (CC, No, Kind, Date): EP 304837 A2 890301 (Basic)
EP 304837 A3 890426
EP 304837 B1 931201
APPLICATION (CC, No, Date): EP 88113580 880820;
PRIORITY (CC, No, Date): US 90638 870828
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C08J-005/06; C08J-005/08;
CITED PATENTS (EP A): WO 8102742 A; US 3556754 A; FR 1462596 A; EP 119011 A ; US 4002651 A; US 4055701 A; DE 2528398 A; US 4246145 A; US 4244844 A

ABSTRACT EP 304837 A2
Chemically treated fibers have an aqueous chemical treating composition and are useful for reinforcing thermoplastic polymers most notably polyacetals and polyphenylenesulfide. The aqueous chemical treating composition has a water soluble silylazide in an effective coupling agent amount, and one or more stabilizing agents selected from a fortified film forming polymer present as an oil-in-water emulsion, an unsaturated organo-compound present in an amount to stabilize the reinforced matrix polymer from degradation by silylazide derivatives or additives, a water soluble polymer, like poly(vinyl alcohol) or silylated poly(vinyl alcohol) present in the composition in an amount greater than 10 weight percent of the composition and mixtures thereof, and water in an effective amount for application of the composition to the fibers. The polymer in the emulsion forms a film through evaporation of volatiles or through curing and is present in the emulsion in about 10 to about 80 weight percent total solids and is present in the aqueous chemical treating composition in an amount of at least around ten weight percent of the solids of the composition. The fortified emulsion has a fortifying amount of a nonionic surfactant, polyvinyl alcohol, silylated poly(vinyl alcohol), or mixture thereof. Additionally, a fiber lubricant can be present which is essentially free of any primary or secondary nitrogen containing moieties present in an effective lubricating amount. The fiber lubricant can be nonionic or cationic fiber lubricants or the poly(vinyl alcohol) or silylated poly(vinyl alcohol), or polyoxyalkylene polyols. The polyoxyethylene polyol is in an amount as a lubricant and/or to increase the viscosity of the aqueous chemical treating composition in the range of about 20 to 80 centipoise. Also a polymer-matrix-compatible film forming polymer emulsion or dispersion can be present.
ABSTRACT WORD COUNT: 285

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	890301 A2	Published application (Alwith Search Report ;A2without Search Report)
Search Report:	890426 A3	Separate publication of the European or International search report
Examination:	891206 A2	Date of filing of request for examination: 891005
Examination:	910522 A2	Date of despatch of first examination report: 910408
Grant:	931201 B1	Granted patent
Oppn None:	941123 B1	No opposition filed
Lapse:	950802 B1	Date of lapse of the European patent in a Contracting State: CH 940831, LI 940831
Lapse:	950802 B1	Date of lapse of the European patent in a Contracting State: CH 940831, LI 940831
Lapse:	950913 B1	Date of lapse of the European patent in a Contracting State: CH 940831, LI 940831, GB 940820, NL 950301
Lapse:	951011 B1	Date of lapse of the European patent in a Contracting State: BE 940831, CH 940831, LI 940831, DE 950503, FR 950428, GB 940820, NL 950301

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION or "621-" glass fibers and low or free boron or fluorine derivatives thereof. The aqueous **chemical treating composition** is applied to the fibers, preferably in the forming operation in a wet **chop** operation. **In** applying the aqueous chemical treating composition to the fibers during the formation of the fibers...

...is maintained around less than 14 weight percent, preferably not less than 10 weight percent. **The glass fiber** strands in wet chopping are usually of a chopped length ranging from less than 1...

...glass fiber strands are dried to remove residual moisture and to adequately cure any curable **film** forming **polymer** . **If** the moisture content is greater than 14 weight percent and the LOI level is increased ...

12/5,K/14 (Item 14 from file: 348)

00287000

Stabilized glass reinforced polyacetal compositions.

PATENT ASSIGNEE:
E.I. DU PONT DE NEMOURS AND COMPANY, (200580), 1007 Market Street, Wilmington Delaware 19898, (US), (applicant designated states: DE;FR;GB;IT;NL)

INVENTOR:
Wagman, Mark Elliot, 2519 Wexford Drive, Wilmington Delaware 19810, (US)

LEGAL REPRESENTATIVE:
Abitz, Walter, Dr.-Ing. et al (1202), Abitz, Morf, Gritschneder, Freiherr von Wittgenstein Postfach 86 01 09, D-8000 Munchen 86, (DE)

PATENT (CC, No, Kind, Date): EP 281148 A2 880907 (Basic)
EP 281148 A3 900704

APPLICATION (CC, No, Date): EP 88103355 880304;

PRIORITY (CC, No, Date): US 23064 870306
DESIGNATED STATES: DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: C08L-059/00; C08K-009/04; C08L-059/00; C08L-063/00
CITED PATENTS (EP A): US 3210318 A; GB 1297458 A; US 3901846 A; FR 2027033 A; EP 201691 A

ABSTRACT EP 281148 A2
Incorporation of 0.02-1.0 weight percent of epoxy containing compounds into glass reinforced polyacetal molding compositions results in improved anaerobic thermal stability of such compositions during processing.
ABSTRACT WORD COUNT: 30

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	880907 A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	900704 A3	Separate publication of the European or International search report
Examination:	910109 A2	Date of filing of request for examination: 901109
Withdrawal:	910918 A2	Date on which the European patent application was withdrawn: 910715
*Withdrawal:	910925 A2	Date on which the European patent application was withdrawn (change): 910715

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION stability and tensile strength.
The glass used in the compositions of the present invention include **chopped** strand **glass fiber** containing a **coating** comprising a **polyurethane** or a blend of polyurethanes which consist of the reaction products of 1,6 hexane...

12/5,K/15 (Item 15 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00208644
Stampable laminates of glass fiber reinforced poly(ethylene terephthalate).
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Raghupathi, Narasimhan, 3978 Mury Highland Circle, Murrysville, Pa. 15668, (US)
Carley, Earl P., 484 Hillview Drive, New Kensington, Pa. 15068, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, W-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 220513 A2 870506 (Basic)
EP 220513 A3 880824
EP 220513 B1 930421
APPLICATION (CC, No, Date): EP 86113362 860929;
PRIORITY (CC, No, Date): US 783608 851003
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C08J-005/08; C08L-067/02; C08K-009/06;

CITED PATENTS (EP A): US 4457970 A; US 4457970 A; US 4469543 A; US 4469543 A; US 4044188 A; EP 24895 A

ABSTRACT EP 220513 A2

Stampable laminates of glass fiber reinforced poly(ethylene terephthalate).

Thermoforming and high temperature molding from melting of the stampable, glass fiber reinforced polyethylene terephthalate of the present invention produces parts having good strength properties. The laminate has chemically treated glass fibers and polyethylene terephthalate which is either amorphous, semi-amorphous or crystalline. The chemically treated glass fibers are in the form of chopped strands, continuous strands and mats of chopped and/or continuous strands which can also be mechanically or chemically bonded. The chemical treatment on the glass fiber results from drying the glass fibers treated with an aqueous chemical treating composition. The aqueous chemical treating composition has a film forming polymer which is an epoxy polymer and/or bisphenol A polyester film forming polymer having a decomposition temperature of at least 370(degree)C in an effective film forming amount, and epoxy-containing organo functional coupling agent or a mixture of such a coupling agent with an amino-containing organo functional coupling agent in an effective coupling agent amount and a cationic lubricant in an effective lubricating amount and a carrier such as water to allow treatment of the glass fibers.

ABSTRACT WORD COUNT: 186

LEGAL STATUS (Type, Pub Date, Kind, Text):

Lapse:	020612	B1	Date of lapse of European Patent in a contracting state (Country, date): BE 19930930, CH 19930930, LI 19930930, DE 19930421, FR 19930421, GB 19930929, NL 19930421,
Application:	870506	A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	880824	A3	Separate publication of the European or International search report
Examination:	890315	A2	Date of filing of request for examination: 890117
Examination:	901114	A2	Date of despatch of first examination report: 900927
Grant:	930421	B1	Granted patent
Lapse:	931229	B1	Date of lapse of the European patent in a Contracting State: NL 930421
Lapse:	940119	B1	Date of lapse of the European patent in a Contracting State: DE 930421, NL 930421
Oppn None:	940413	B1	No opposition filed
Lapse:	940803	B1	Date of lapse of the European patent in a Contracting State: CH 930930, LI 930930, DE 930421, NL 930421
Lapse:	940803	B1	Date of lapse of the European patent in a Contracting State: CH 930930, LI 930930, DE 930421, NL 930421
Lapse:	941130	B1	Date of lapse of the European patent in a Contracting State: BE 930930, CH 930930, LI 930930, DE 930421, NL 930421
Lapse:	941207	B1	Date of lapse of the European patent in a Contracting State: BE 930930, CH 930930, LI

930930, DE 930421, GB 930929, NL 930421
LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION terephthalate) or poly(ethylene terephthalate) or mixtures thereof.

Generally, the fiber reinforced thermoplastic polymers have **glass fibers** of various shapes, sizes, configurations and chemical treatments. The chemical treatments on the surfaces of the **glass fibers** protect the **glass fibers** from interfilament abrasion during formation and subsequent processing, and the chemical treatment makes the **glass fibers** more compatible with the organic polymers they are to reinforce. The chemical treatments conventionally have **film** forming **polymers** , lubricants, coupling agents, wetting agents, and emulsifiers and the like. The **glass fibers** with the chemical treatments are gathered into bundles or strands and prepared into chopped strands...

...provides the mat with some integrity between the strands. An example of a mechanically bound **glass fiber** strand mat is a needled mat of continuous strands or long **chopped glass fiber** strands or a mixture thereof. An illustration of a continuous strand mat which is needled...

12/5,K/16 (Item 16 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00199302
Chemically treated glass fibers for reinforcing polymeric matrices.
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Temple, Chester Stanley, 166 N. Vireo Drive, McKees Rocks Pennsylvania 15136, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, D-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 201691 A2 861120 (Basic)
EP 201691 A3 871223
EP 201691 B1 901227
APPLICATION (CC, No, Date): EP 86103554 860317;
PRIORITY (CC, No, Date): US 717760 850329
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02;
CITED PATENTS (EP A): US 3803069 A; FR 2495129 A; US 4457970 A; US 4542065 A; EP 170981 A

ABSTRACT EP 201691 A2

Chemically treated **glass fibers** in the form of continuous bundles of **glass fibers** and **chopped** bundles of **glass fibers** are provided that have good handleability and thermal aging characteristics in reinforcing thermoplastic polymers. The chemically treated **glass fibers** have a dried residue of an aqueous chemical treating composition. The aqueous chemical treating composition has two aqueous soluble, dispersible, or emulsifiable **film** forming **polymers** which can be either epoxy polymers and polyurethane polymers or epoxy polyurethane

copolymers and polyurethane polymers and an amino alkyl functional silane coupling agent and at least a second silane coupling agent whch can be a lubricant modified amine organo functional silane coupling agent, a polyamino organo functional silane coupling agent, an epoxy organo functional silane coupling agent or a vinyl organo functional silane coupling agent and a reaction product process aid. The reaction product process aid is obtained by reacting alkoxylated nitrogen-containing compound such as an alkoxylated fatty amine and an alkoxylated fatty amide with a polycarboxylic acid to produce a product which is reacted with an epoxide compound. The amount of water in the aqueous chemical treating composition is that to give an effective solids content for treating the **glass fibers** . The chemically treated **glass fibers** as **chopped** bundles of **glass fibers** are suitable for reinforcing such thermoplastic polymers as polybutylene terephthalate, polyphenylene sulfide, polyphenylene oxide and polyacetals.
ABSTRACT WORD COUNT: 227

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	861120	A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	871223	A3	Separate publication of the European or International search report
Examination:	880511	A2	Date of filing of request for examination: 880316
Examination:	891011	A2	Date of despatch of first examination report: 890830
Grant:	901227	B1	Granted patent
Change:	910918	B1	Rectifications of patent specifications (change): (B1) (901227)
Oppn None:	911218	B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

12/5,K/17 (Item 17 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00162825
Chemically treated glass fibers and strands and dispersed products thereof.
PATENT ASSIGNEE:
PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)
INVENTOR:
Gaa, Peter Charles, 1246 Hazlett Road, Pittsburgh, Pa. 15237, (US)
LEGAL REPRESENTATIVE:
Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, W-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 162421 A2 851127 (Basic)
EP 162421 A3 861126
EP 162421 B1 910807
APPLICATION (CC, No, Date): EP 85106062 850517;
PRIORITY (CC, No, Date): US 612536 840521
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02;
CITED PATENTS (EP A): GB 956363 A; US 3837892 A; US 4430486 A

ABSTRACT EP 162421 A2

Chemically treated glass fibers and strands and dispersed products thereof.

Treated **glass fibers** having improved utilization of silane coupling agents are produced which have good strand handling and processing properties and which result in reinforced polymeric materials having good strength properties and good UV color stability. The treated **glass fibers** having an aqueous treating composition present on a substantial portion of the surface of the **glass fibers** , wherein the aqueous chemical treating composition has an aqueous dispersion of an internally silylated polyurethane polymer having siliconate anions and one or more dispersing agents in at least an effective dispersing amount, and water in an amount to give a total solids for the aqueous chemical composition for treatment of the **glass fibers** . The one or more dispersing agents, can be present as external dispersing agentes in which case their amounts could be both aneffective dispersing amount and an effective lubricating mount. In addition, the dispersing agents can be present with the internally silylated polyurethane polymer as an internal hydrophilic additive like nonionic and/or ionic and/or ionic precursor dispersing agents. In this case, the aqueous chemical treating composition has a **glass fiber** lubricant present in an effective lubricating amount. The internally silylated polyurethane may also have internal hardening segments to provide hardness to the **polyurethane film** formed on the **glass fibers** . The treated **glass fibers** can be used in reinforcing thermoplastic and thermosetting polymeric materials in various forms of continuous **glass fibers** and strand and **chopped glass fibers** and strands and mats of **glass fibers** and strands.

ABSTRACT WORD COUNT: 256

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	851127	A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	861126	A3	Separate publication of the European or International search report
Examination:	870708	A2	Date of filing of request for examination: 870507
Examination:	880720	A2	Date of despatch of first examination report: 880603
Grant:	910807	B1	Granted patent
Oppn None:	920729	B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

12/5,K/18 (Item 18 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00162824

Aqueous dispersion, internally silylated and dispersed polyurethane resins, and surfaces containing same.

PATENT ASSIGNEE:

PPG INDUSTRIES, INC., (223180), One PPG Place, Pittsburgh Pennsylvania 15272, (US), (applicant designated states: BE;CH;DE;FR;GB;IT;LI;NL)

INVENTOR:

Gaa, Peter Charles, 1248 Hazlett Road, Pittsburgh, Pa. 15237, (US)

Dana, David Eric, 7430 Light House Point, Pittsburgh, Pa. 15221, (US)

LEGAL REPRESENTATIVE:

Sternagel, Hans-Gunther, Dr. et al (46851), Patentanwalte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30, W-5060 Bergisch Gladbach 2, (DE)
PATENT (CC, No, Kind, Date): EP 163214 A2 851204 (Basic)
EP 163214 A3 870121
EP 163214 B1 910821
APPLICATION (CC, No, Date): EP 85106061 850517;
PRIORITY (CC, No, Date): US 612116 840521; US 612207 840521
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL
INTERNATIONAL PATENT CLASS: C03C-025/02; C08G-018/38;
CITED PATENTS (EP A): LU 68889 A; FR 2296664 A; US 3983291 A; EP 86271 A; US 4147679 A

ABSTRACT EP 163214 A2

Aqueous dispersion, internally silylated and dispersed polyurethane resins, and surfaces containing same.

An aqueous dispersible, isocyanate-containing polymer or prepolymer or chain extended polymer is provided which has internal pendant, reactable silane groups and which can also have internal dispersing aids. The aqueous dispersible, isocyanate-containing polymer, prepolymer, or chain extended polymer produces an aqueous dispersion of a polyurethane polymer having pendant reactable siliconate anions. The isocyanate-containing polymer is prepared from polyisocyanates, organic compounds with at least 2 active hydrogens, and organosilane which is at least monofunctional in reaction with isocyanate groups on at least one organic moiety of the organosilane. The organosilane also may have hydrolyzed or hydrolyzable groups associated with the silicone atom. The prepolymer is formed at temperatures less that 200(sub 0)c at atmospheric pressure in a one shot or two step process. The polymer is combined with water to form an oil-in-water dispersion, and, if it is a prepolymer, the molecular weight is increased through chain extension. Th pH of the aqueous dispersion of the polyurethane is maintained at least around 7 when the silyl concentration of the polymer is greater than 0.1 weight percent of the water in the dispersion. The aqueous dispersion can also be prepared from a prepolymer that is devoid of any organosilane used as a comonomer and where the prepolymer is dispersed and chain-extended with the difunctional organo silane. The aqueous dispersion of the polyurethane resin is used in coating myriad substrates such as inorganic oxide substrates.

ABSTRACT WORD COUNT: 246

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	851204	A2	Published application (A1with Search Report ;A2without Search Report)
Search Report:	870121	A3	Separate publication of the European or International search report
Examination:	870805	A2	Date of filing of request for examination: 870609
Examination:	880824	A2	Date of despatch of first examination report: 880711
Grant:	910821	B1	Granted patent
Oppn None:	920812	B1	No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION so that when the aqueous dispersion is applied to the preferred inorganic oxide surface of **glass** fibers, the **glass fibers** can be **chopped** in a facile manner. In producing the

isocyanate-containing prepolymer, the organic compound with the...

12/5,K/19 (Item 19 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00381724
PRINTING SHEET
FEUILLE D'IMPRESSION
Patent Applicant/Assignee:
PPG INDUSTRIES INC,
Inventor(s):
ALDERFER George E,
HILL Charles T,
KEIM William A,
SCHWARZ Richard A,
YOLDAS Bulent E,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9722467 A1 19970626
Application: WO 96US19361 19961206 (PCT/WO US9619361)
Priority Application: US 95573081 19951215
Designated States: AU CA CN JP MX SG AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Main International Patent Class: B32B-003/00
International Patent Class: B32B-03:26; B23B-27:14
Publication Language: English

English Abstract
Printing sheets comprising microporous material or compressed microporous material having an ink-receptive layer joined to at least one side of the microporous material or compressed microporous material are particularly suited for ink jet printing. Preferably the ink-receptive layer comprises hydrated aluminum oxide, and binder comprising water-soluble hydroxypropyl cellulose and water-soluble poly(vinyl alcohol).

Detailed Description
... than 15 percent by weight. Examples of such materials include antioxidants, ultraviolet light absorbers, reinforcing **fibers** such as **chopped glass fiber** strand, dyes, pigments, and the like. The balance of the microporous material, exclusive of filler...

...ink, or impregnant applied for one or more special purposes is essentially the thermoplastic organic **polymer** .

On a **coating** -free, printing ink free, and impregnant-free basis, pores constitute from 35 to 80 percent...

12/5,K/20 (Item 20 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00378384 **Image available**
LIQUID CRYSTAL POLYMER FILMS
COUCHES MINCES EN POLYMERE A CRISTAUX LIQUIDES

Patent Applicant/Assignee:
HOECHST CELANESE CORPORATION,
Inventor(s):
LONG Barbara J,
JESTER Randy D,
PENOYER John A,
LEE Cherylyn,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9719127 A1 19970529
Application: WO 96US17059 19961024 (PCT/WO US9617059)
Priority Application: US 95561966 19951122
Designated States: JP
Main International Patent Class: C08J-005/18
International Patent Class: B32B-15:08; B29C-43:22; C08L-67:04; C08L-77:12
Publication Language: English

English Abstract

Liquid crystal polymer films and film laminates are prepared by subjecting finely divided polymer particles to sufficient heat and pressure to form a nematic melt phase of the polymer and cooling the structure to form a film. Films prepared by this process exhibit a better balance of tensile properties, improved dimensional stability and reduced coefficient of thermal expansion than conventional extruded film, rendering them more suitable as dielectric film layers in circuit board construction.

Detailed Description

... polyphenylene sulfide polymers, as disclosed in U.S. Patent 4,389,453, is to incorporate **chopped glass fibers** into the polymer prior to extrusion or press molding the composition into a composite sheet...

...sheets may also be f ormed by heat compressing a woven glass mat with a **film** of the **polymer** or heat compressing a glass mat containing the polymer in powdery, particulate form...

12/5,K/21 (Item 21 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00314165
CATALYTIC, CROSSLINKED POLYMERIC FILMS FOR ELECTROLESS DEPOSITION OF METAL FILMS POLYMERES RETICULES CATALYTIQUES UTILISES POUR DEPOSER DU METAL SANS COURANT
Patent Applicant/Assignee:
MONSANTO COMPANY,
Inventor(s):
ASRAR Jawed,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9532318 A1 19951130
Application: WO 95US6108 19950516 (PCT/WO US9506108)
Priority Application: US 94271 19940524
Designated States: CA JP MX AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Main International Patent Class: C23C-018/20
Publication Language: English

English Abstract

Catalytically inert, crosslinked polymeric films adapted to be activated to catalyze electroless deposition of metal by application of heat are formed from solutions of hydroxy-functionalized polymer, preferred polymers include hydroxy-reactive crosslinking agent and a Group 8 metal compound. Preferred crosslinking agents are block isocyanates and methylated melamines.

Detailed Description
... coated articles can comprise printed circuits or patterns on rigid polymeric substrates or on flexible **polymeric films** . Still other articles can comprise metal coated textile materials, e.g. woven, non-woven, knitted or needle-punched fabrics, threads, yarns, **chopped fiber** , sliver or ...can comprise natural fibers such as cellulosics, synthetic fibers of acrylic, nylon, polyester, polyaramide, inorganic **fibers** such as **glass** , quartz, graphite and the like.

Metal coatings on the articles of this invention can comprise...

12/5,K/22 (Item 22 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00298669
PAPERMACHINE CLOTHING
HABILLAGE POUR MACHINE A PAPIER
Patent Applicant/Assignee:
SCAPA GROUP PLC,
VALENTINE Craig,
SAYERS Ian Christison,
Inventor(s):
VALENTINE Craig,
SAYERS Ian Christison,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9516820 A1 19950622
Application: WO 94GB2731 19941214 (PCT/WO GB9402731)
Priority Application: GB 9325608 19931215
Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA US UZ VN KE MW SD SZ AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: D21F-003/02
Publication Language: English

English Abstract
A method of making a shoe press belt comprises the step of feeding a base cloth (13) over a rotating drum (11) and applying a polymer coating to the base cloth (13), as the base cloth (13) is fed over the rotating drum (11). The polymer coating is impregnated with a fused silica or aramid thixotrope.

Detailed Description
... cloth 13 and the top of the drum 11. The polyurethane coating is impregnated with **chopped aramid fibres** in order to prevent sagging of the polymer on the drum and to improve the abrasion resistance.of the belt,
In order to impregnate the polyurethane coatinci with the **chopped aramid fibres** the **fibres** are added in substantially equal amounts to the

thermoset precursor material, The arami containing precursors...

12/5,K/23 (Item 23 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00267959
CHEMICALLY TREATED INORGANIC OXIDE FIBERS WITH THERMAL STABILITY SUITABLE FOR HIGH TEMPERATURE POLYMERS
Patent Applicant/Assignee:
PPG INDUSTRIES INC,
Inventor(s):
WATKINS Johnson C,
SWISHER Robert G,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9416129 A1 19940721
Application: WO 94US574 19940113 (PCT/WO US9400574)
Priority Application: US 933780 19930113
Designated States: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Main International Patent Class: D02G-003/00
International Patent Class: B32B-09:00; B32B-25:20; C08L-75:00; C08L-83:00; C08K-03:20
Publication Language: English

English Abstract
Inorganic oxide substrates treated with an aqueous chemical treating composition having at least one organo alkoxide or hydroxide of a metal selected from titanium and zirconium either with a select combination of film forming polymers and/or with one or more organo-functional silane coupling agents. The combination of the titanium or zirconium coupling agent and the silane coupling agent can be as two distinct compounds.

Detailed Description
... the polyurethane polymer. Additional amounts of the epoxy polymer may reduce some handling characteristics of **chopped** sized **glass fibers** . Specifically the filamentation resistance may be decreased, while additional amounts of polyurethane polymer may result in less thermal resistance of a reinforced composite. Generally, the amount of the **film** forming **polymer** is an effective **film** forming amount. This amount results in the film residue upon evaporation of the volatiles or cur ing of the curing agent with **film** forming **polymer** . The effective **film** forming amount generally ranges from around 1 to around 25 weight percent of the total...

...possible for higher solids applications. For instance, when an oil-in-water emulsion with a **film** forming **polymer** is present in an aqueous size, the amount of the emulsion on a solids basis...

12/5,K/24 (Item 24 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00229964 **Image available**
CATALYTIC EMULSIONS FOR ELECTROLESS DEPOSITION
EMULSIONS CATALYTIQUES UTILISEES DANS UN PROCEDE DE DEPOT SANS COURANT
Patent Applicant/Assignee:
MONSANTO COMPANY,
Inventor(s):
GABBERT James Delvin,
TOKAS Edward Francis,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9304215 A1 19930304
Application: WO 92US6395 19920730 (PCT/WO US9206395)
Priority Application: US 91254 19910815
Designated States: AU CA JP KR RU AT BE CH DE DK ES FR GB GR IT LU MC NL SE
Main International Patent Class: C23C-018/20
International Patent Class: C23C-18:26; D06M-11:83
Publication Language: English

English Abstract
Aqueous, catalyst emulsions adapted for forming cross-linked, polymeric coatings which can catalyze the electroless deposition of metal comprise (a) water, (b) surfactant-stabilized particles of a cross-linkable, water-insoluble polymer dispersed as an emulsion in said water, (c) a water soluble compound of a Group 8 metal, and (d) a cross-linking agent. Such emulsions are adapted to forming catalytically inert, dry films which can be simultaneously thermally cross-linked and activated to catalyze electroless deposition of strongly adhering metals such as copper, nickel and silver. Cross-linkable polymers include polybutadiene and copolymers of butadiene, poly(vinylchloride), poly(methacrylate), poly(alkylmethacrylate) and poly(vinylacetate).

Detailed Description
... or fixtures. Other articles can comprise printed circuits on rigid polymeric substrates or on flexible **polymeric films** . An especially preferred aspect of this invention provides metal coated textile materials, e.g. woven, non-woven, knitted or needle-punched fabrics, threads, yarns, **chopped fiber** sliver or monofilament tow and the like, The substrate of the metal coated articles can...can comprise natural fibers such as cellulosics, synthetic fibers of acrylic, nylon, polyester, polyaramide, inorganic **fibers** such as **glass** , quartz, graphite and the like. The metal coated textile materials of this invention are especially...

12/5,K/25 (Item 25 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00226804
CHEMICALLY TREATED GLASS FIBERS FOR REINFORCING POLYMERIC MATERIALS
FIBRES DE VERRE TRAITEES CHIMIQUEMENT POUR LE RENFORCEMENT DE MATERIAUX POLYMERES
Patent Applicant/Assignee:
PPG INDUSTRIES INC,
Inventor(s):
KLETT Michael W,
BEER Kenneth D,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9301051 A1 19930121

Application: WO 92US5761 19920709 (PCT/WO US9205761)
Priority Application: US 91747 19910712
Designated States: CA JP AT BE CH DE DK ES FR GB GR IT LU MC NL SE
Main International Patent Class: B32B-027/04
International Patent Class: C08K-09:04
Publication Language: English

English Abstract

A unique composition of matter useful for treating glass fibers is claimed containing a film forming polymer, an organo coupling agent, a filament lubricant and an allylic compound, such as triallylcyanurate. The glass fibers carrying the dried residue of an aqueous chemical treating composition containing the unique chemical treating composition can be used to prepare a thermosetting plastic composite having improved strength. The composites so prepared are useful in making clear, translucent panels of improved weatherability and pultrusion profiles having higher strengths, such as compressive, shear and flexural strengths.

Detailed Description

For instance, in processing of panels of composite, the wet-out of the 15 **chopped glass fiber** strand or bundles of fibers must occur within a short time before the polymeric matrix containing the **chopped glass fibers** is cured in a processing line, Therefore, the wet out rate for the fibers is...

...as clear or translucent panels. Any retardation of the wet-out rate for 20 the **chopped glass fiber** strands would not be advantageous in the processing of panels of composites. Thus the chemically treated fibers of the present invention are eminently suited in producing weatherable, fiber reinforced **polymeric** panels.

Film forming **polymers** suitable for use herein in the 25 preparation of the novel composition of matter are...

12/5,K/26 (Item 26 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00192637
CATALYTIC, WATER-SOLUBLE POLYMERIC FILMS FOR METAL COATINGS
FILMS POLYMERES HYDROSOLUBLES ET CATALYTIQUES POUR REVETEMENTS METALLIQUES
Patent Applicant/Assignee:
MONSANTO COMPANY,
Inventor(s):
VAUGHN George Douglas,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9109986 A1 19910711
Application: WO 90US7340 19901213 (PCT/WO US9007340)
Priority Application: US 89565 19891221; US 90882 19900820; US 90718 19901113
Designated States: AT AU BE BR CA CH DE DK ES FR GB GR HU IT JP KR LU NL NO SE SU
Main International Patent Class: C23C-018/30
Publication Language: English

English Abstract
Metal coated articles where the metal is electrolessly deposited onto catalytic films prepared by thermally activating catalytically inert films formed from an aqueous solution comprising polymer, e.g. cellulosic, vinyl alcohol or oxyolefin polymers, and catalytic metal of group 8, e.g. palladium. Copper electrolessly deposited on activated films exhibits high ductility similar to electrolytic copper, e.g. at least about 8 percent ductility.

Detailed Description
... or fixtures. Other articles can comprise printed circuits on rigid polymeric substrates or on flexible **polymeric films** . An especially preferred aspect of this invention provides metal coated textile materials, e.g. woven, non-woven,, knitted or needle-punched fabrics,, threads,, yarns, **chopped fiber** sliver or monofilament tow and the likes The substrate of the metal coated articles can...

...can comprise natural fibers such as cellulosics, synthetic fibers of acrylic, nylon, polyester, polyaramide, inorganic@ **fibers** such as **glass** , quartz, graphite and the like...

12/5,K/27 (Item 27 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00144436
COMPOSITE MATERIALS AND METHOD OF PREPARATION
MATERIAUX COMPOSITES ET PROCEDE DE PREPARATION
Patent Applicant/Assignee:
CONGOLEUM CORPORATION,
Inventor(s):
GROSE Reginald Eugene,
MORTON John Fraser,
FOWLER Joseph Allen,
PIACENTE Anthony Niel,
BUHNER Robert Walter,
BAILEY William J,
PEARSON John Douglas,
JACKEY Philip Albert,
Patent and Priority Information (Country, Number, Date):
Patent: WO 8801319 A1 19880225
Application: WO 87US1980 19870811 (PCT/WO US8701980)
Priority Application: US 86423 19860813
Designated States: AT BE CH DE DK FI FR GB IT JP KR LU NL SE
Main International Patent Class: D21H-005/18
Publication Language: English

English Abstract
A method for making a non-woven, dimensionally stable composite sheet comprising a polymeric binder, cellulosic **fibers** , and **glass fibers** comprising the following steps (A) - (D) in sequence: (A) forming an aqueous dispersion of: (i) cellulosic fibers in the form of a wood pulp consisting essentially of soft wood fibers of a particular type; and (ii) a water-soluble surfactant comprising a dispersion aid for said **glass fibers** in an amount sufficient to disperse said **glass fibers** in said

dispersion; (B) adding to said dispersion containing said cellulosic fibers and said surfactant **chopped glass fibers** in an amount such that the partial consistency of said **glass fibers** in said dispersion is from about 0.5 to about 3.0 %, said added **glass fibers** having only residual water content, an average length of from about 0.1 to 0.7 inch and a diameter of about 6mu to about 13mu; (C) adding to said dispersion containing said surfactant and said fibers an organic, water-insoluble, **film** -forming, **polymeric** binder; and (D) forming from said aqueous dispersion a dried, non-woven dimensionally stable composite sheet comprising from about 5 to about 50 wt.% of said cellulosic fibers and from about 5 to about 25 wt.% of said **glass fibers** .

Detailed Description
... in said dispersion;
(B) adding to said dispersion containing said cellulosic fibers and said surfactant **chopped glass fibers** in an amount such that the partial consistency of said **glass fibers** in said dispersion is from about 0,5 to about 3,0t, said added **glass fibers** having only residual water content, an average length of from about 0.1 to

..C) adding to said dispersion containing said surfactant and said fibers an organic,, water-insoluble, **film** -forming, **polymeric** binder;
and (D) forming from said aqueous dispersion a dried, non-woven, dimensionally stable composite...

12/5,K/28 (Item 28 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00133871
ALIPHATIC POLYURETHANE SPRAYABLE COATING COMPOSITIONS AND METHOD OF PREPARATION
Patent Applicant/Assignee:
THERMOCELL DEVELOPMENT LTD,
Inventor(s):
SMITH Stuart B,
Patent and Priority Information (Country, Number, Date):
Patent: WO 8606387 A1 19861106
Application: WO 86US845 19860425 (PCT/WO US8600845)
Priority Application: US 85776 19850426
Designated States: AT AU BE CH DE FR GB IT JP LU NL SE
Main International Patent Class: C08G-018/00
International Patent Class: C08G-18:16; C08G-18:77
Publication Language: English

English Abstract
A light stable, fast reacting, aliphatic **polyurethane** sprayable **coating** composition and injectable open molding material is prepared by reacting an A side composition comprising a trimerized or biuret polymethylene polyisocyanate prepolymer with a B side composition comprising an admixture of an alkoxy polyalkylene glycol, such as methoxypolyethylene glycol and an aromatic polyamine such as diethyl toluene diamine to provide a polyurethane reaction product which rapidly gels, may be quickly removed from the mold, has good green strength and high temperature resistance and is characterized by good ultraviolet or light stability properties. Optionally, the B side composition may

contain a catalytic amount of a metal carboxylate like lead naphthenate. The A and B side compositions may be sprayed onto a mat in an open mold and also may be sprayed in conjunction with **chopped glass fibers**, to form a **glass - fiber** spray coating.

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Set     Items   Description
S1     388192   FILM? ? OR COATING? ?
S2     479503   POLYMER?? OR COPOLYMER?? OR RUBBER OR POLYCHLOROPRENE OR N-
             EOPRENE OR SYTRENE()(ISOPRENE OR BUTADIENE OR ETHYLENE)(2W)ST-
             YRENE OR SIS OR SBS OR NITRILE OR VINYL()CHLORIDE OR PVC OR P-
             OLYURETHANE OR POLYUREA
S3       2892   CHOP????(2N)(FIBER? ? OR FIBRE? ?)
S4      43815   (GLASS OR STEEL OR ARAMID OR POLYETHYLENE OR PARTICLE()FIL-
             LED)(2N)(FIBER? ? OR FIBRE? ?)
S5      61646   S1(3N)S2
S6         64   S3(S)S5
S7         40   S6(S)S4
S8          0   S7 AND IC=A41D
S9         40   S7
S10        30   S9 NOT PY>1997
S11        30   IDPAT (sorted in duplicate/non-duplicate order)
S12        28   IDPAT (primary/non-duplicate records only)
? show files
File 348:EUROPEAN PATENTS 1978-2003/Apr W04
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030508,UT=20030501
         (c) 2003 WIPO/Univentio
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Inpadoc

09/605,979
VANATTA=3741

1/39/1
DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat

15196618
Basic Patent (No,Kind,Date): WO 9933367 A1 19990708 <No. of Patents: 003>
Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date	
AU 9920241	A1	19990719	AU 9920241	A	19981231	
US 6021524	A	20000208	US 2011	A	19971231	
WO 9933367	A1	19990708	WO 98US27911	A	19981231	(BASIC)

Priority Data (No,Kind,Date):
US 2011 A 19971231
WO 98US27911 W 19981231

PATENT FAMILY:
AUSTRALIA (AU)
Patent (No,Kind,Date): AU 9920241 A1 19990719
CUT RESISTANT POLYMERIC FILMS (English)
Patent Assignee: UNIV AKRON
Author (Inventor): WU ZONGQUAN; HARRIS FRANK W; CHENG STEPHEN Z D
Priority (No,Kind,Date): US 2011 A 19971231; WO 98US27911 W 19981231
Applic (No,Kind,Date): AU 9920241 A 19981231
IPC: * A41D-019/00
Derwent WPI Acc No: * C 99-405329
Language of Document: English

UNITED STATES OF AMERICA (US)
Patent (No,Kind,Date): US 6021524 A 20000208
CUT RESISTANT POLYMERIC FILMS (English)
Patent Assignee: UNIV AKRON (US)
Author (Inventor): WU ZONGQUAN (US); HARRIS FRANK W (US); CHENG STEPHEN Z D (US)
Priority (No,Kind,Date): US 2011 A 19971231
Applic (No,Kind,Date): US 2011 A 19971231
National Class: * 002167000; 002168000; 002161700
IPC: * A41D-019/00
Derwent WPI Acc No: * C 99-405329
Language of Document: English

UNITED STATES OF AMERICA (US)
Legal Status (No,Type,Date,Code,Text):
US 6021524 P 19971231 US AE APPLICATION DATA (PATENT)
(APPL. DATA (PATENT))
US 2011 A 19971231
US 6021524 P 20000208 US A PATENT

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)
Patent (No,Kind,Date): WO 9933367 A1 19990708
CUT RESISTANT POLYMERIC FILMS (English)
Patent Assignee: UNIV AKRON (US)
Author (Inventor): WU ZONGQUAN; HARRIS FRANK W; CHENG STEPHEN Z D
Priority (No,Kind,Date): US 2011 A 19971231
Applic (No,Kind,Date): WO 98US27911 A 19981231
Designated States: (National) AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; GM; HR; HU; ID;

IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; UZ; VN; YU; ZW (Regional) GH; GM; KE; LS; MW; SD; SZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

Filing Details: WO 130000 With international search report; Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments

IPC: * A41D-019/00

Derwent WPI Acc No: ; C 99-405329

Language of Document: English

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Legal Status (No,Type,Date,Code,Text):

WO 9933367	P	19971231	WO AA	PRIORITY (PATENT) US 2011 A 19971231
WO 9933367	P	19981231	WO AE	APPLICATION DATA (APPL. DATA) WO 98US27911 A 19981231
WO 9933367	P	19990708	WO AK	DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT (DESIGNATED STATES CITED IN A PUBLISHED APPL. WITH SEARCH REPORT) AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
WO 9933367	P	19990708	WO AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT (DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPL. WITH SEARCH REPORT) GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
WO 9933367	P	19990708	WO A1	PUBLICATION OF THE INTERNATIONAL APPLICATION WITH THE INTERNATIONAL SEARCH REPORT (PUB. OF THE INTERNATIONAL APPL. WITH THE INTERNATIONAL SEARCH REPORT)
WO 9933367	P	19990826	WO DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE
WO 9933367	P	19990908	WO 121	EP: PCT APP. ART. 158 (1) (EP: PCT ANM. ART. 158 (1))
WO 9933367	P	20000504	DE 8642/REG	IMPACT ABOLISHED FOR DE (WIRKUNG WEGGEFALLEN FUER DE)

QUESTEL

Summary:
Search statement 1

?us6021524/pn

Term not in index/PN-CRXX : US6021524
Term not in index/PN-PAST : US6021524
Term not in index/PN-LITA : US6021524

LGST	1
CRXX	0
PAST	0
LITA	0

** SS 1 : Results 1

1/1 LGST (1/1) - (C) LEGSTAT
PN - US 6021524 [US6021524]
AP - US 2011/97 19971231 [1997US-0002011]
DT - US-P
ACT - 19971231 US/AE-A
APPLICATION DATA (PATENT)
{US 2011/97 19971231 [1997US-0002011]}
- 20000208 US/A
PATENT
UP - 2000-09

Lexis:

LEVEL 1 - 1 OF 1 PATENT

<6,021,524>

<<=2>> GET 1st DRAWING SHEET OF 1

Feb. 8, 2000

Cut resistant polymeric films

CORE TERMS: glove, fiber, layer, resistance, latex, polymeric, film, mold, elastomeric, resistant...
>>>

LEXIS

6021524 OR 6,021,524

Your search request has found no legal CASES.

Your search request has found no law journal ITEMS.

No news stories.